RAILROAD

MAGAZINE | APRIL 50c

STEEL RAILS THROUGH THE TALL CANE

THE STORY OF AMERICA'S SUGAR RAILROADS—BY CHARLES MORROW WILSON

We'll send YOU a Money-Making "Shoe Store" Business FREE!

Just 8 easy orders a day bring you up to $960 a month!

RUSH COUPON FOR FREE BUSINESS OUTFIT!

Here's a business for you that will be as much fun as it is profitable... and you don't have to invest one cent...ever! We've helped thousands of men succeed in this unique business...and we'd like to do it for **you,** too. Just 2 orders a day from friends, neighbors, relatives, in "off hours" earns you $168 EXTRA a month! James Kelly of Ohio took so many orders for these Nationally-Advertised shoes that he made $93.55 in just ONE evening! Fred Mapes of California regularly makes $5 to $10 every hour he devotes to his Mason Shoe business! There is no limit on what you can earn!

It's **easy** with our way of selling shoes. We set you up in a complete "shoe store" business you can run from your home. **We** carry the stock and ship the shoes. All you do is show the styles to your family, friends, people where you work, etc....and take orders. You have a profitable business with no rent, light bill, clerk hire or other costs to worry you. **You keep 100% of your profit!**

Here's why you'll make money!

● You offer **170** comfortable fast-selling styles...far more than a store! ● You have an amazing range of **sizes (2½ to 14)** and **widths (AAAA to EEEE).** Even hard-to-fit people can buy from you! ● Because we carry over 200,000 pairs in stock, your customers get **exactly** what they want ...no misfits or substitutions! ● You feature exclusive Velvet-eez shoes with foamy-soft **air-cushion innersoles** that let you "walk on air." Built for supreme comfort, Mason shoes also feature built-in strong steel shanks, Air-Cushion longitudinal support, Nylon stitching. Advertised in Esquire, Good Housekeeping and on TV, they'll be available **only** from **you**—not sold in stores! ● You save your customers money, and the time they would waste "shopping around" shoe stores.

Take Orders For Over 170 Dress-Sport-Work Shoe Styles!

REPLACEMENT OR REFUND OF MONEY ★ Guaranteed by Good Housekeeping IF NOT AS ADVERTISED THEREIN

30 kinds of work shoes! A style for every trade! Special Neoprene, Cork, Cushion soles, heels...ventilated work shoes...even Safety Toe Shoes!

Smart dress, sport styles! The last word in styling! Many fine, unusual leathers. Cool Nylon Mesh styles, moccasins, 2-tones and Cush-N-Crepe soled shoes!

70 Styles for Women! Satisfy almost every taste! Many comfort features. Low-heeled, high-heeled, casuals, service shoes, latest styles!

No wonder you'll have the biggest and best "shoe store" business in town!

MASON SHOE MFG. CO.
Dept 513 Chippewa Falls, Wisconsin
Since 1904

You'll get a Starting Kit *FREE!*

As soon as we receive the coupon below we'll send you a complete Business Outfit **FREE and postpaid!** It features the entire Mason Collection in full color; contains 10-second Air Cushion demonstrator, valuable Booklet chock full of how-to-make-money hints, special Measuring Board, advertising reprints...everything else you need to start making cash profits from the first hour! We'll also show you how to earn monthly **Bonus Checks** and win costly prizes **Free!**

Mason Shoes will be available ONLY from You!

Because Mason Shoes are not sold in stores, you get **repeat** orders from delighted customers almost automatically! Steady cash profits every month! Since everyone you know wears shoes...**EVERYBODY IS A PROSPECT!** No wonder this is the perfect "off-hours" business: a quality product everybody needs... backed by the famous Good Housekeeping Guarantee Seal...one you can take orders for 12 months of the year. Want to see how much money **you** can make? For a 2¢ postcard you can try it NOW...start your exciting business **right away!**

RUSH THIS STAMP FOR YOUR *FREE* BUSINESS OUTFIT!

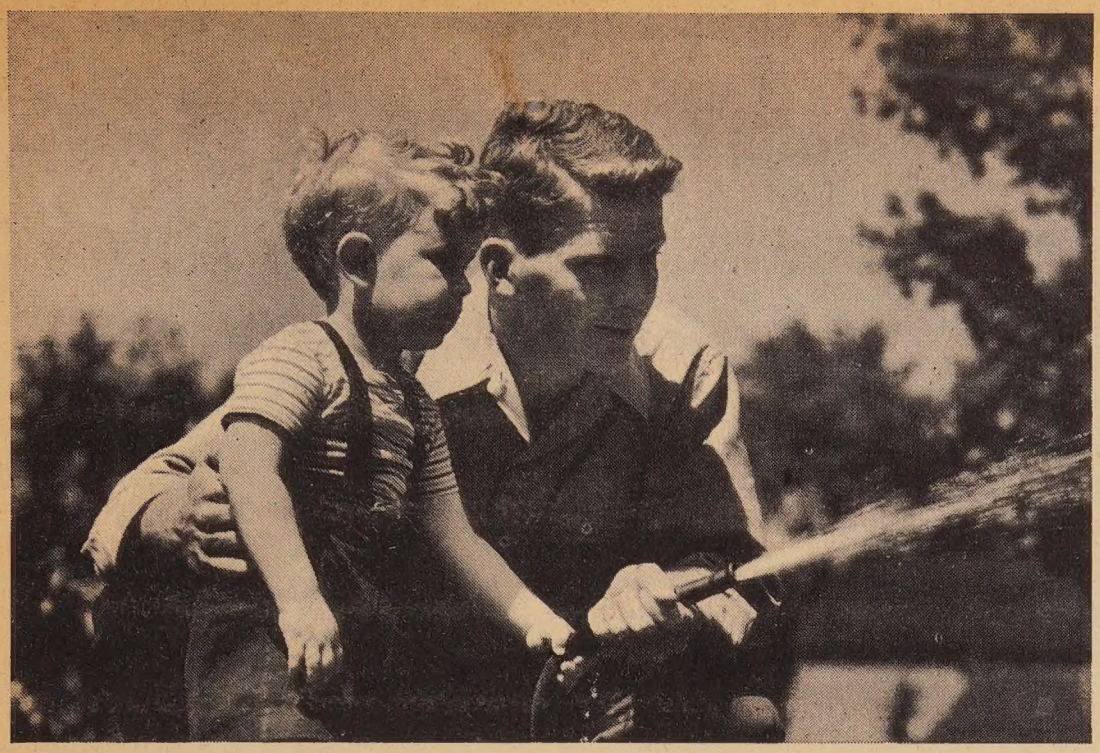
Mr. Ned Mason, Vice President Dept 513
Mason Shoe Mfg. Co.,
Chippewa Falls, Wisconsin

Yes, I'd like to give myself a $168 a month raise! Please set me up as your man in my community by rushing my Complete Starting Shoe Business Outfit FREE and postpaid so I can start making extra money from my first hour!

Name_____

Address_____

Town_____ State_____



This man is a "security risk"!

Age, 29. Married. Two children. High school education. Active in local lodge, church, veterans' organization. Employed by large manufacturing concern. Earns $82 a week.

Sounds like an Average Joe. And he is. Too average! He's got a job. It pays fairly well. He's satisfied.

But here's the catch. With the right kind of training, this young man could be stepping into better jobs. He could be making $7-8000 a year. He could be cashing in on those spare-time hours he now wastes.

As it stands now, he's stuck in his job. Can't seem to make any headway. He's reluctant to try. So he just hangs on.

This man is a "Security Risk" to his wife and children.

His family probably will never enjoy the comforts, the prestige, the good living that could be theirs. If hard times come, they are almost sure to be hurt. For an Average Joe can't expect to compete with trained men when the chips are down.

A man like this would do well to start a planned program of self-improvement. In his spare time. In a field related to his interests and abilities. Right NOW!

One good way to start—a way proved by hundreds of thousands of once-Average Joes who are making good today—is to enroll for special training with a recognized correspondence school. One like I. C. S., the oldest and largest in the world.

Don't *you* be a "Security Risk." Mail the coupon for full, free details while there is still time.

For Real Job Security—Get an I. C. S. Diploma! **I. C. S., Scranton 9, Penna.** Member, National Home Study Council

INTERNATIONAL CORRESPONDENCE SCHOOLS — 65TH YEAR

BOX 93752B, SCRANTON 9, PENNA. (Partial list of 256 courses)

Without cost or obligation, send me "HOW to SUCCEED" and the opportunity booklet about the field BEFORE which I have marked X (plus sample lesson):

ARCHITECTURE and BUILDING CONSTRUCTION
- ☐ Air Conditioning—Refrig.
- ☐ Architecture
- ☐ Architectural Interiors
- ☐ Building Contractor
- ☐ Building Estimator
- ☐ Building Maintenance
- ☐ Carpentry and Mill Work
- ☐ Heating
- ☐ Painting Contractor
- ☐ Plumbing
- ☐ Reading Arch. Blueprints

ART
- ☐ Cartooning
- ☐ Commercial Art
- ☐ Fashion Illustrating
- ☐ Magazine Illustrating
- ☐ Show Card and Sign Lettering
- ☐ Sketching and Painting

AUTOMOTIVE
- ☐ Auto Body Rebuilding
- ☐ Auto Elec. Technician
- ☐ Auto-Engine Tune Up
- ☐ Automobile Mechanic

AVIATION
- ☐ Aeronautical Engineering Jr.
- ☐ Aircraft & Engine Mechanic

BUSINESS
- ☐ Advertising
- ☐ Bookkeeping and Accounting
- ☐ Business Administration
- ☐ Business Correspondence
- ☐ Public Accounting
- ☐ Creative Salesmanship
- ☐ Federal Tax
- ☐ Letter-writing Improvement
- ☐ Office Management
- ☐ Professional Secretary
- ☐ Retail Business Management
- ☐ Sales Management
- ☐ Stenographic-Secretarial
- ☐ Traffic Management

CHEMISTRY
- ☐ Analytical Chemistry
- ☐ Chemical Engineering
- ☐ Chem. Lab. Technician
- ☐ General Chemistry
- ☐ Natural Gas Prod. & Trans.
- ☐ Petroleum Engineering
- ☐ Plastics
- ☐ Pulp and Paper Making

CIVIL, STRUCTURAL ENGINEERING
- ☐ Civil Engineering
- ☐ Construction Engineering
- ☐ Highway Engineering
- ☐ Reading Struct. Blueprints
- ☐ Sanitary Engineering
- ☐ Structural Engineering
- ☐ Surveying and Mapping

DRAFTING
- ☐ Aircraft Drafting
- ☐ Architectural Drafting
- ☐ Electrical Drafting
- ☐ Mechanical Drafting
- ☐ Mine Surveying and Mapping
- ☐ Plumbing Drawing and Estimating
- ☐ Structural Drafting

ELECTRICAL
- ☐ Electrical Engineering
- ☐ Electrical Maintenance
- ☐ Electrician ☐ Contracting
- ☐ Lineman

HIGH SCHOOL
- ☐ Commercial ☐ Good English
- ☐ High School Subjects
- ☐ Mathematics

LEADERSHIP
- ☐ Foremanship
- ☐ Industrial Supervision
- ☐ Leadership and Organization
- ☐ Personnel-Labor Relations

MECHANICAL AND SHOP
- ☐ Gas—Electric Welding
- ☐ Heat Treatment ☐ Metallurgy
- ☐ Industrial Engineering
- ☐ Industrial Instrumentation
- ☐ Industrial Supervision
- ☐ Internal Combustion Engines
- ☐ Machine Design-Drafting
- ☐ Machine Shop Inspection
- ☐ Machine Shop Practice
- ☐ Mechanical Engineering
- ☐ Quality Control
- ☐ Reading Shop Blueprints
- ☐ Refrigeration
- ☐ Sheet Metal Worker
- ☐ Tool Design ☐ Toolmaking

RADIO, TELEVISION
- ☐ Industrial Electronics
- ☐ Practical Radio TV Eng'r'ng
- ☐ Radio and TV Servicing
- ☐ Radio Operating
- ☐ Television Technician

RAILROAD
- ☐ Air Brake Equipment
- ☐ Car Inspector
- ☐ Diesel Engineer & Fireman
- ☐ Section Foreman

STEAM AND DIESEL POWER
- ☐ Combustion Engineering
- ☐ Diesel—Elec. ☐ Diesel Eng's
- ☐ Electric Light and Power
- ☐ Stationary Fireman
- ☐ Stationary Steam Engineering

TEXTILE
- ☐ Carding and Spinning
- ☐ Cotton, Rayon, Woolen Mfg.
- ☐ Finishing and Dyeing
- ☐ Loom Fixi'g ☐ Textile Des'ing
- ☐ Textile Eng'r'g ☐ Throwing
- ☐ Warping and Weaving

MISCELLANEOUS
- ☐ Domestic Refrigeration
- ☐ Marine Engineering
- ☐ Ocean Navigation
- ☐ Professional Engineering
- ☐ Short Story Writing
- ☐ Telephony

Name_____ Age_____ Home Address_____

City_____ Zone_____ State_____ Working Hours_____ A.M. to P.M._____

Occupation_____

Canadian residents send coupon to International Correspondence Schools, Canadian, Ltd., Montreal, Canada. . . . Special tuition rates to members of the U. S. Armed Forces.

FREEMAN HUBBARD
Editor

P. C. GRAVES
Associate Editor

BERNARD WHITE
Art Director

BARBARA KREIMER
Information Booth

STEVE MAGUIRE
Transit Topics

RAILROAD MAGAZINE

THE MAGAZINE OF ADVENTUROUS RAILROADING—FOUNDED 1906

VOL. 68, NO. 3 APRIL 1957 50 CENTS

ILLUSTRATED FEATURES

Photos of the Month 15
Steel Rails Through the Tall Cane ..... C. M. Wilson 22
He Followed a Hunch ..... Harold K. Vollrath 32
The Modernized South Shore Line ... Steve Maguire 50
All-time Steam Roster: Kansas City Southern 74

FICTION

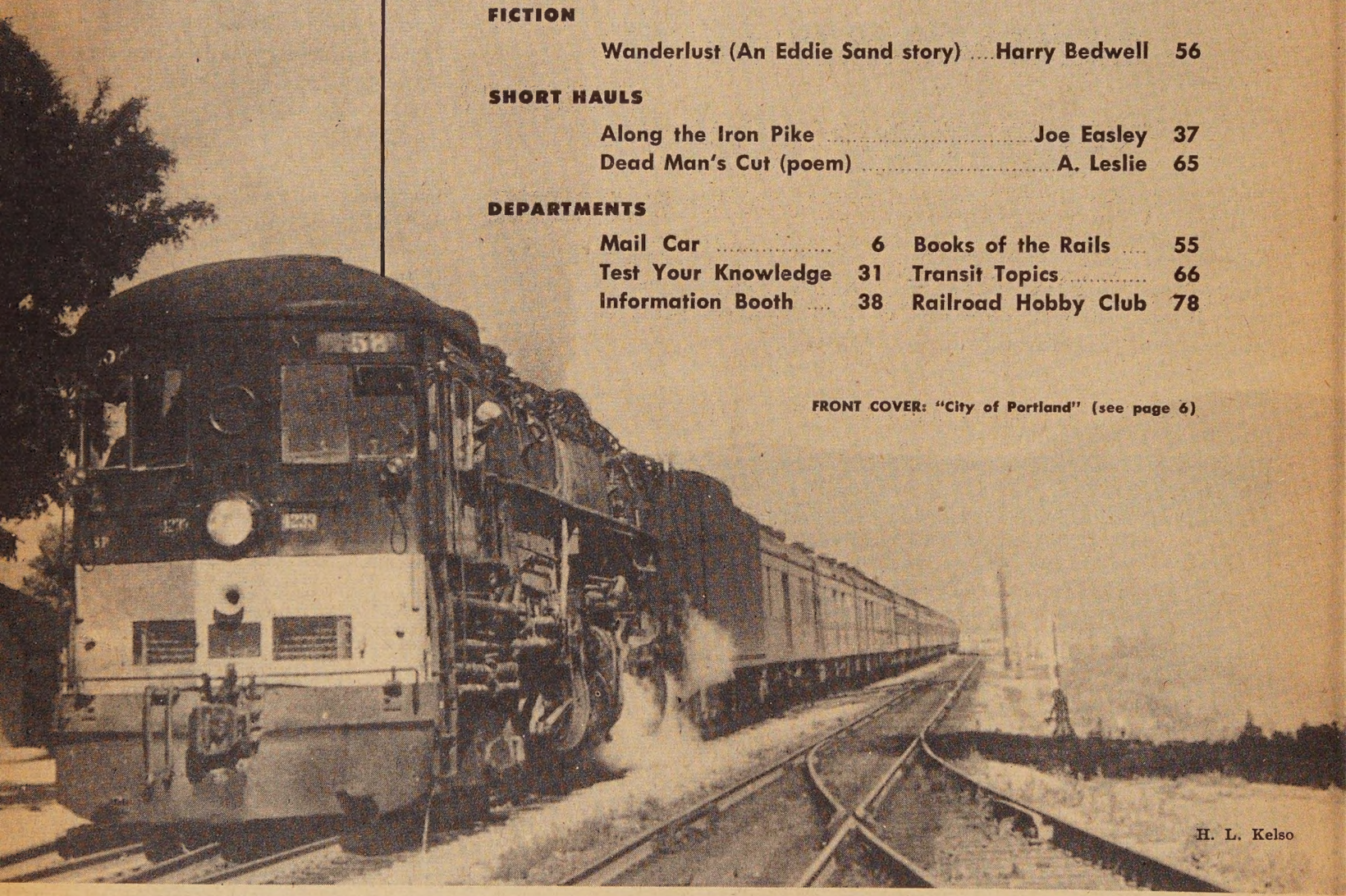
Wanderlust (An Eddie Sand story) .... Harry Bedwell 56

SHORT HAULS

Along the Iron Pike ..... Joe Easley 37
Dead Man's Cut (poem) ..... A. Leslie 65

DEPARTMENTS

Mail Car 6
Test Your Knowledge 31
Information Booth 38
Books of the Rails 55
Transit Topics 66
Railroad Hobby Club 78



FRONT COVER: "City of Portland" (see page 6)

H. L. Kelso

HENRY STEEGER, *Publisher*
THOMAS HARRAGAN, *Associate Publisher*
P. J. GLEASON, *Production Manager*
IRA MOSHIER, *Newsstand Sales Manager*
JOSEPH MUCCIGROSSO, *Subscription Manager*

ADV. REPRESENTATIVES
Wilson & Stark, 40 East 50th St., New York, N. Y.
Harley L. Ward, Inc., 360 North Michigan Ave., Chicago, Ill.
Houston & Walsh, 111 North La Cienega Blvd., Beverly Hills, Calif.

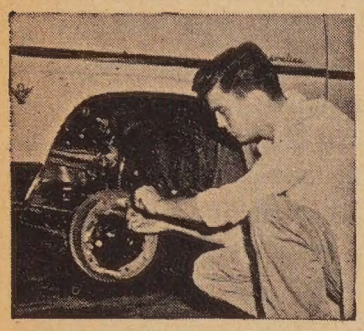
CHANGE OF ADDRESS: POSTMASTER—Please mail Form 3579 notices to: RAILROAD, 205 East 42nd Street, New York 17, N. Y.

Published bi-monthly by Popular Publications, Inc., at 1250 Camden Ave., S.W., Canton 6, Ohio. Editorial and executive offices, 205 East 42nd Street, New York 17, N. Y. Henry Steeger, President, John J. McVarish, Treasurer. Entered as second-class matter at the Post Office at Canton, Ohio. Copyright 1956, by Popular Publications, Inc. This issue is published simultaneously in the Dominion of Canada. Copyright under International Copyright Convention and Pan-American Copyright Conventions. All rights reserved, including the right of reproduction, in whole or in part, in any form. Title registered in U.S. Patent Office. Single copy, 50c. Subscription for U.S.A., its possessions, and Canada, $5.00 for 12 issues. Other countries, $6.00. When submitting manuscripts, enclose stamped, self-addressed envelope for their return, if found unacceptable. The publishers will exercise care in the handling of unsolicited manuscripts, but assume no responsibility for their return. Printed in U.S.A.

My Fast NEW Shop-Method Trains You At Home for Big Pay in AUTO MECHANICS

R. C. ANDERSON, President of Commercial Trades Institute, has trained thousands of men for success in Auto Mechanics.

America's Greatest Industry Offers You Good Jobs, Success



The auto industry desperately needs trained mechanics. *Good pay, lifetime security,* and *many opportunities for success* are waiting for men who qualify. Here's why your future in America's No. 1 industry is so bright.

Today, there are over 50 million passenger cars and 10 million trucks on the road. Experts say that these figures will increase fifty per cent within 10 years. "Aside from the prosperity generated by the huge flood of cars," a leading automotive magazine reports, "the service potential they create . . . is tremendous." Speaking of old cars, the magazine says, "About two-thirds of all cars in use are in the heavy repair age classification."

Thousands of mechanics are needed right now. Many of these jobs offer top pay and security. Why not qualify now, while the opportunities are so good? I'll give you the facts in my two FREE BOOKS if you will fill out and mail coupon below.

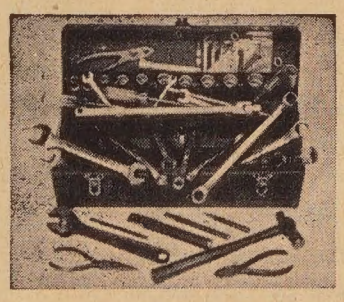
Learn in Months — the Practical CTI Way

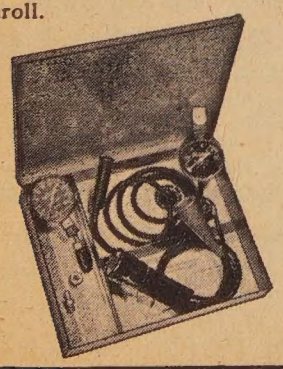
I'll bring my new Shop-Method training into your home, where you can learn auto mechanics in just a few months. I'll teach you tune-up; overhaul; automatic transmissions; power steering; power brakes; electric, cooling and lubricating systems—every phase of diagnosis and repair. *I'll teach you diesel mechanics or body-fender rebuilding (at no extra cost).* Yes, CTI training IS more practical, easier to understand, and up to date!

You Practice with Tools and Tune-Up Kit I Send

VALUABLE MECHANIC'S TOOLS

As part of your training, I send this valuable set of fine-quality mechanic's tools. The complete kit is yours to use and keep. Tools increase your interest, help you get practical experience, make you proud of your trade. You'll be using these tools for spare-time repair work and profit soon after you enroll.





ONLY CTI SENDS THIS FINE, PROFESSIONAL TUNE-UP KIT

Only CTI sends you this kit of essential tune-up instruments. Experienced mechanics everywhere use this same kit to locate engine troubles. Included in the kit is a Compression Tester, a Vacuum Gauge and Fuel Pump Tester, an Ignition Timing Light, and a portable, steel case. Every tester is the product of a famous manufacturer—each is compact, beautifully constructed, and accurate.

YOUR FUTURE IS WORTH LOOKING INTO

Add to Your Income as You Learn

After a few lessons, many students earn extra cash while repairing cars in spare time for friends, neighbors and fellow workers. Others get part time jobs in local repair shops. Spare time repairing pays for training, provides practical experience, and makes friends. Many CTI graduates have gone into business because they did repairing in the community during their training.

Open a Shop—Be the Boss

It's easy to go in business for yourself after you are a trained mechanic. Start in your own back yard as you train, and rent a building after you graduate. Many students work in a repair shop, get themselves a reputation for good work, then start off on their own.

Mail Coupon for Job Facts

You'll like being an auto mechanic—and you'll love the pay! The work is clean, interesting and varied—you use modern testing instruments and labor-saving devices. Get into the field that offers more jobs, greater security, more opportunity for success. Mail coupon below to R. C. Anderson, President, Commercial Trades Institute, Chicago.

I TRAIN MEN FOR SUCCESS

"Have bettered myself nearly 100%. Am in partnership with another fellow and we have 24 cars of our own."—A. H. CATES, MAINE.

"After my completion of training in auto mechanics, I started as a full-fledged mechanic in a Buick garage."—W. CARTWRIGHT, IND.

"On completing my course, I went to work in a garage repairing generators, starters and other electrical equipment. Training is complete and thorough."
—J. EDWARDS, ILL.

"Without CTI training, I would not have the job I hold today. When I showed my CTI diploma, I was given a chance to work as a mechanic."
W. O'NEIL, PA.

"I have made good progress, and have had 3 pay raises in 8 months. Before I took the course, I knew very little about a car engine. But now I can step up and do most any job."—W. LONG, PA.

BOTH CTI BOOKS *FREE!*

MR. R. C. ANDERSON, President, Dept. A-454
Commercial Trades Institute
1400 Greenleaf Ave., Chicago 26, Ill.

Mail me Sample Lesson and 28-page book, "*Big Money in Auto Mechanics.*" Both FREE.

Name_____ Age_____

Address_____

City_____ Zone_____ State_____

OWN a Nationally Advertised Business

If Now Employed
You can profitably operate in spare time and build a permanent full time business.

$5.00 hourly profit
If you are capable, cooperative and willing to work to enjoy success, we'll establish you in **your own business** and arrange easy terms to help you get started. Alert dealers can average $5.00 hourly gross profit on service they render, and $3.00 on **EACH** of their servicemen at National Price Guide charges. No experience needed.

1/4 PAGE Better Homes and Gardens

Clean Rugs and Upholstery

Duraclean Dealers' businesses are built upon the solid foundation of an international organization with 27 years of Proven Success. Duraclean Service was established to improve cleaning methods for rugs and upholstery . . to eliminate harsh machine scrubbing . . to prevent shrinkage from soaking. Instead of floating surface soil down into upholstery and rugs, this amazing process actually removes it by absorption!

We Help You Grow

Our **MUTUAL COOPERATION** program gives you many unique and continuous advantages: **National Advertising** in Life, House & Garden, Parents', Maclean's (Canada) and a dozen others. **Copyright** and **trademark** protection. **Certificate** approves equipment and materials. **Products Insurance. Six-year Warranty. Pocket Demonstrators. Sales Book. Advertising Folders & Cards. Tested Ads. Ad Cuts & Mats. Store Display Cards. Radio & TV Musical Commercials.** Home Show **Booth Display. Publicity Program** gets Free local newspaper stories. **Prizes. Laboratory** research and development. **Monthly magazine. Resale Service. Annual Conventions.** Behind all this is a headquarters interested in YOUR personal success.

Protects Against Moths

Duraproof is another year 'round service rendered right in the home, office or business building—without removing furnishings. It protects carpets, upholstery, furs, clothing, piano felts and auto interiors from damage by moths or carpet beetles. Duraproof is the only mothproof service backed by an International Money-Back 6-YEAR WARRANTY.

What Dealers Say

W. Lookiebill: We've had 20 years of pleasant dealings. I'm 65 but am setting my sights for 20 more years. **J. Dalton: Business previous 4 weeks was $1,600.00.** P. Freidinger: 70% of our business is repeat . . . also get business from reference of satisfied customers. **C. Lombardo: Have 100% satisfaction.** G. Merriman: This made me $700.00 cleaning with only 13 working days.

FREE Booklet

If you are interested in an opportunity like this, fill out the coupon today! A letter and 16 page illustrated booklet will explain everything. We furnish electric machines, advertising matter, store cards, introduction slips, sales book demonstrators and enough materials to return your TOTAL investment. You can have YOUR OWN business operating in a few days. Mail coupon NOW and discover for yourself. No obligation. Easy Terms!

World Wide

Duraclean Co., 7-704 Duraclean Bldg., Deerfield, Ill.

"OWN a Business" Coupon

Duraclean Co., 7-704 Duraclean Bldg., Deerfield, Ill.

Without obligation to me, send booklet and letter giving full details. Tell me how I can OWN a growing business of my own built upon satisfied customers.

Name.....

Address.....

City.....State.....

MAIL CAR

Running Orders, Waybills, and Sandhouse Gossip

from Railroaders, Fans, and the Editorial Crew

LURE OF THE RAILS is our April cover subject. Two hikers on an Idaho bluff just east of Pocatello watch the bright *City of Portland* streak across a fertile valley. The scene was shot with a 4x5 Speed Graphic on Ektachrome film at about F-14 and 1/25 second by William A. Coons, Union Pacific chief photographer. Bill has been with the company since 1928. If you think his job is soft, guess again. He's been known to struggle up mountain sides lugging a 50-pound 8x10 camera. On various assignments he has come near to freezing atop Mount Whitney and drowning in Montana; he has sweltered in Death Valley, has bucked a Wyoming blizzard, and has snowshoed over 14-foot Idaho snowdrifts—all in the name of photographic art!

William A Coons

The department he heads turns out 5,000 or so black-and-white prints a month. Bill himself is headquartered at Omaha but averages 75,000 train-miles a year in quest of pictures. His favorite steam shot appears on pages 42-43. The photo on page 18 also is his. ●

WHO says that youth is held down by the seniority rule? William Morgan, Jr., who began railroading on the Lackawanna's Morris & Essex Division in 1953, is only 21 but had been promoted to passenger conductor. His father is mighty proud, being a passenger conductor himself on the same division. ●

PROPHECY. Entire railroads of the future may be controlled electronically from one central point, predicts the Reading's president, Joseph A. Fisher.

"We have the basic elements now for a virtually automatic railroad," he says. "Using the Reading as an example, I see no reason why, at a future date, the system cannot be controlled from one room in our Philadelphia terminal."

As examples of the "dramatic use of electronics in current railroad operations," Mr. Fisher cites the (1) use of radio, or the inductive system, to start, stop, or move a train from a remote point, (2) remote-control handling of complicated yard operations, (3) control of train movements over great distances from a centrally-located point, (4) use of devices whereby trains are able to identify themselves as they pass a given point, and even set up their own routes, and (5) the analog computer, or "electric brain," which handles accounting and statistical work.

Particularly exciting is the new electrically-controlled system that enables freight cars to steer themselves through yards. At the heart of this system, an electronic brain gathers and transmits data on each car entering the yard. A punched tape indicates the destination of each car in a freight train. As the cars are pushed over the hump and begin rolling into the classification yard, an operator presses a button to start the tape.

Each car is weighed electronically as it nears the hump. Then, as it descends the incline, radar measures its speed and "rollability." Another device tells how many cars are already standing on each classification track, thus governing the distance each incoming car must roll.

This information is fed to the electronic brain, which in turn tells a series of retarders (speed-control devices along the car's route) exactly how much slowing down each car requires to roll at just the right coupling speed into its proper track. The new system speeds up yard operations. ●

TIME WAS when a locomotive engineer didn't have to keep a fireman he disliked, according to "Carload Andy" Ospring, 1322 N. Ontario St., Burbank, Calif.

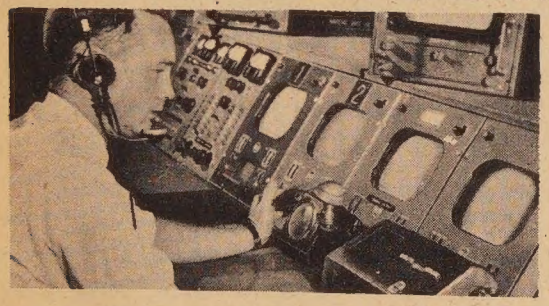
"When I was pulling freight on the Vandalia line," he recalls, "I had a fire-

Learn Radio-Television

Servicing or Communications

by Practicing at Home in Spare Time

N.R.I. SENDS kits with which you practice building circuits common to Radio and TV sets. You LEARN-BY-DOING to locate Radio-TV troubles. As part of N.R.I. Servicing Course, you build Vacuum Tube Voltmeter and AC-DC receiver. Use VTVM to conduct experiments, earn extra money fixing sets in spare time.



RADIO-TV BROADCASTING (see above) offers important positions as Operators and Technicians. RADIO-TV SERVICING Technicians (see below) needed in every community. Their services are respected, their skill appreciated.

Fast Growing Field Offers You Good Pay, Success, Bright Future

J. E. SMITH
Founder

Bigger than ever and still growing fast. That's why Radio-TV has special appeal to ambitious men not satisfied with their job and earnings. More than 4,000 Radio and TV stations. More than 150 million home and auto Radios, 40 million TV sets. Color TV promises added opportunities. For the trained man, there are good jobs, bright futures in Radio-TV Servicing or Broadcasting.

Training PLUS opportunity is the *ideal combination* for success. So plan *now* to get into Radio-TV. The technical man is looked up to. He does important work, gets good pay for it. Radio-Television offers that kind of work. NRI can supply training quickly, without expense of going away to school. Keep your job while training. You learn at home in your spare time. NRI is the OLDEST and LARGEST home study Radio-TV school. Its methods have proved successful for more than 40 years.

Added Income Soon - $10, $15 a Week in Spare Time

Soon after enrolling, many NRI students start to earn $10, $15 a week in spare time fixing sets. Some pay for their training and enjoy extra luxuries this way. Some make enough to start their own Radio-TV shops. NRI training is *practical*—gets quick results. Easy to understand, well illustrated lessons teach you basic principles. And you LEARN-BY-DOING by practicing with kits of equipment which "bring to life" things you study.

Find Out What NRI Offers

NRI has trained thousands for successful careers in Radio-TV. Study fast or slow—as you like. Diploma when you graduate. Mail coupon now. Paste it on a postcard or mail in envelope. ACTUAL LESSON FREE. Also 64 page catalog that shows opportunities, shows equipment you get. Cost of NRI courses low. Easy terms. **NATIONAL RADIO INSTITUTE, Dept. 7CR4 , Washington 9, D. C.**

N.R.I. TRAINED THESE MEN FOR SUCCESS

"I was repairing Radios by 10th lesson. Now have good TV job." M. R. LINDEMUTH, Fort Wayne, Ind.

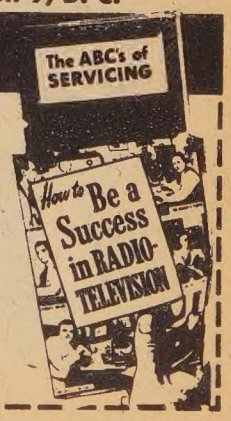
"Doing spare time repairs on Radio and TV. Soon servicing full time." CLYDE HIGGINS, Waltham, Mass.

"I had a successful Radio repair shop. Now I'm Engineer for WHPE." V.W.WORKMAN, High Point, N.C.

"There are a number of NRI graduates here. I can thank NRI for this job." JACK WAGNER, Lexington, N. C.

VETERANS Approved Under G.I. Bills

SEND FOR BOTH FREE



National Radio Institute
Dept. 7CR4, Washington 9, D. C.

Mail me Sample Lesson and 64-Page Catalog FREE. (No salesman will call. Please write plainly.)

Name_____ Age___

Address_____

City_____ Zone___ State_____

Approved Member National Home Study Council

man who was too smart-alecky for an engine cab. We just couldn't stand each other. Finally I told him to get another job, and he did. My father, 'Dutch Andy,' a famous Vandalia engineer, said that a fireman came into the cab one day boasting about the fun he'd had sleeping with another man's wife the night before. Pop shut him up fast, and that man never fired for Dutch Andy again. He was discharged for a violation of rules." ●

READER'S CHOICE. What do *you* like most—and least—in *Railroad Magazine's* contents? William E. Warden, Jr., 233 Florence Ave., Waynesboro, Va., answers in about 40 words:

"LIKES: *Information Booth* (Barbara knows her stuff), *Mail Car*, up-to-date steam rosters, *Transit Topics*, and *Switch List*.

"*DISLIKES*: Fiction (but Bedwell reprints are much better than modern stories), long-winded personal anecdotes and all-time rosters of motive power, especially on small Western lines.

How many cash customers agree with Bill? How many disagree? Send us your own list. We will analyze and publish the results of this poll and will use it as a guide in selecting material for future issues. But keep your comments brief! We prefer postal cards because you can't ramble too much on a card. Every letter or card you send us is read from start to finish. Long letters cut too much into the time we need for making up the magazine. Our best friends, as a rule, are those who write us the shortest letters.

Bill should have said what he thinks of illustrated feature articles. We don't know if he likes 'em or not. ●

CONVERTED to woodburner—not in the movies but for present-day operation—that's the odd metamorphosis of a Canadian Pacific oil-burning steam locomotive, No. 969, reports Ken Stephanishin, Box 302, Revelstoke, B.C., Canada.

"The CPR runs a mixed train. Nos. 801 and 802," he explains, "on a 29-mile branch line between Revelstoke and Arrowhead every Saturday and Wednesday. This train usually consists of the engine, freight cars, a wooden baggage car, a coach, and a caboose. Well, on my birthday night, last Sept. 2, shortly after the train left Arrowhead, No. 969's oil stopped flowing and the train stood still. But railroad men are resourceful. The crew unloaded, scattered, and were soon piling the engine high with fence posts. Then, using these posts as fuel, they proceeded, but stopped every few miles to build up steam. At length they made it into town, where a repair job re-converted old 969 to oil." ●

FINAL RUN over the Barre & Chelsea main line last November closed an 89-year chapter which began with the chartering of the road between Montpelier and Wells River, Vt., in 1867.

"It was a sad sight," comments Elwin K. Heath, Barre, Vt., who used to work for that road, "a lone diesel and a caboose with a mournful crew!"

The main line is being torn up for scrap. But the B&C is not entirely gone. A branch nearly 22 miles long was bought by a newly-formed Montpelier & Barre Railroad Co. to operate between Montpelier and the granite quarries atop Barre Mountain. ●

FREE BOOKLET and Job-Getting Secrets

This CONSERVATIONIST can help YOU become a

GAME WARDEN, FOREST RANGER, FISH HATCHERY MAN...

OR SECURE EMPLOYMENT WITH A PRIVATE FUR, FISH OR FORESTRY COMPANY!

Meet Jim Allison, one of our personal counselors, who'll work hard for you if you're *seriously* interested in career conservation. Jim's a well-known outdoor writer. He lives on a Wyoming ranch, spends his time writing various wildlife departments . . . helping men like yourself locate rewarding wildlife positions. If you live only for those glorious days afield; if you *believe* in conservation; then why not use your spare-time to prepare NOW, at home, for a challenging outdoor job? It's easy, fun, enjoyable as reading your favorite sports magazines. Opportunities have never been greater – almost *regardless* of your age or education. We've helped many others. Now, let Jim Allison and Home Study Educators show *you* the way, too!

What other Career offers so many of the really Important things in Life?

NO SPECIAL TRAINING REQUIRED. Hunting, farming, military service, common skills – all help to get *most* outdoor jobs. Positions open to men 17 to 45, most states.

HEALTHFUL WORK. The sense of well-being you enjoy on vacations and outings may be yours *all the time*. Say goodbye to "city tensions" and a humdrum job. Live *better, longer* . . . raise your family in health and happiness.

GOOD PAY, SECURITY. Start at up to $3000 yearly, enjoy fair play, regular raises. Work toward a $6000 to $10,000 position. Benefit from low cost housing, retirement income, many other advantages!

PRESTIGE. Command the respect of others! Your uniform symbolizes the vigilance needed to conserve America's precious natural resources!

Join these Men whom Jim Allison helped!

"Tremendously helpful. I am now employed by U. S. Dept. of Agriculture, Forest Service." Jess Snyder, Ohio

"I have secured a job as a Foreman with the Conservation Dept. I am assigned to the Game Division – Thanks for everything." Britten Graham, Mich.

"Thanks for assistance in attaining a better position with the Game Commission . . . was given a promotion, a raise, and supervision of 5 men." C. G., Neb.

Game Warden says: "I have never read or seen anything that gives a man such a wonderful background on job opportunities in this field . . . should prove of great value to anyone wanting (an outdoor job)." J. F. C., Game Warden, Minn.

HELP FILL THE NEED FOR *Qualified Career Conservationist!*

Make the "great outdoors" your business! With states spending more conservation funds than ever, career opportunities are booming! We are not govt. sponsored, but dedicated to helping conservation-minded men prepare for and locate the following positions:

GAME WARDEN. You'll protect wildlife, apprehend law breakers . . . supervise refuges, feeding stations, make game counts, etc. Start at up to $3410 a year. Prepare NOW, at home!

FORESTRY. Work amid towering timber, crystal clear mountain streams. Protect trees against fire, insects, diseases . . . supervise patrols. Beginners often earn $300 per month. Prepare now—at home!

GOVT. HUNTER. Hunt and get *paid* for it! Control mt. lions, coyotes, wolves, etc.—earn up to $150 bounty per predator, *plus* salary. $750 monthly possible. Here, it's hunting "know how" that counts.

HATCHERY WORK. You'll artificially propogate game fish... stock lakes, streams . . . keep growth records, etc. Start at up to $300 per month, earn about $700 as foreman. Prepare now—at home!

PRIVATE FISHERIES, GAME FARMS. Qualified employees are urgently needed at private game farms, preserves, trout pools, etc. Above average salaries. Prepare now—at home!

Both FREE

Colorful and revealing success booklet. Explains all job-getting facts plus how to get free "Select a Job Chart." Lets you match your background, education, interests, etc. against many fascinating outdoor job opportunities.

FREE INFORMATION MAIL TODAY!

©1956

AIR MAIL THIS COUPON NOW!

HOME STUDY EDUCATORS Dept. A M3
1038 S. La Brea, Los Angeles 19, Cal.

Rush me FREE "Job Opportunity" booklet & FREE "Select-A-Job Chart" details, without obligation. *(No salesman will call.)*

NAME_____

ADDRESS_____

CITY_____ ZONE__ STATE_____

GOOD JOBS WAITING

...for the Young in Heart!

HOTELS CLUBS MOTELS CALL FOR TRAINED MEN AND WOMEN

Photographed at New York's Famous Essex House

If there ever were a business for the young in heart, it's the hotel, motel, club field. Here, every day can be a thrilling new adventure. Different people to meet, "different" duties to perform. There's laughter, gayety, dancing, excitement. An ever-changing scene of people and events.

There are no "tired old people" in this fascinating field. Even the grey-haired are gay—for there's always excitement and change in the air. It's truly a business for those who want to "go places."

Choose from 51 Exciting Positions

Yours to choose from are luxurious hotels, thrilling resorts, glamorous clubs, as well as the beautifully-appointed motels and motor hotels that are being built from coast to coast. Waiting for you are many different kinds of well-paid positions—each colorful, important, necessary in this happy, ever-changing world of catering to America's traveling millions. But to qualify, you must have training—the kind of training the Lewis School has been giving ambitious men and women like yourself for more than 40 years.

There's Prestige, Position in Hotel Work

Chances are you've seen Lewis-trained men and women if you have ever traveled. For they are managers, hostesses, assistant managers, stewards, purchasing agents, and hold dozens of other well-paid positions in many of America's top hotels, motels, clubs. You've seen them—even envied them—for the things they do, the life they live so thrillingly "different."

Yet, not so long ago, most of them knew no more about hotel, motel, or club work than you do right now—perhaps less. Nine out of ten of them had no previous experience. They come from every walk of life—and they range from high school students to college graduates. What they have done—YOU can do.

You Can Step Into a Well-Paid Hotel Position Certified to "Make Good"

Lewis Training qualifies you quickly at home, in leisure time, or through resident classes in Washington for those well-paid, ever-increasing opportunities. Soon—very soon—you can join the countless Lewis graduates now "making good." A happy, ever-growing future awaits you in this business—previous experience has proved unnecessary and you are not dropped when you are over 40.

Our FREE Book, "Your Big Opportunity," explains how easily you can qualify for a well-paid position; how you are registered FREE in Lewis National Placement Service; how you can be a Lewis Certified Employee—certified to "make good." MAIL COUPON NOW.

Course Approved for All Veteran Training
An Accredited School of N.H.S.C.

LEWIS HOTEL TRAINING SCHOOL

Room YCC-119-95 **Washington 7, D. C.**

M. C. Lewis, President
Lewis Hotel Training School
Room YCC-119-95, Washington 7, D. C.

41st SUCCESSFUL YEAR

Please send me FREE and without obligation details as to how to qualify for the hotel, motel, and club field.

☐ Home Study ☐ Resident

Name .....
(Please Print Plainly)

Address .....

City ..... Zone ..... State .....

☐ Check here if eligible for Veteran Training.

Check the Kind of Body YOU Want!

RIGHT IN THE COUPON BELOW

...and I'll Prove How EASILY You Can Have It!

Charles Atlas

JUST tell me where you want it—and I'll add SOLID INCHES of powerful new muscle SO FAST your friends will grow bug-eyed with wonder! I'll PROVE you can get the kind of body you want in just 15 minutes a day—in your own home—or it won't cost you a penny!

You wouldn't believe it, but I myself used to be a 97-lb. weakling. Fellows called me "Skinny." Girls made fun of me. THEN I discovered my marvelous new muscle-building system—"*Dynamic Tension.*" It turned me into such a specimen of MANHOOD that today I hold the title "THE WORLD'S MOST PERFECTLY DEVELOPED MAN."

"DYNAMIC TENSION" — that's my secret. When you look in the mirror and see a healthy, husky fellow smiling back at you—then you'll realize how fast "Dynamic Tension" GETS RESULTS! That's because it's the natural method you can practice in your own room—JUST 15 MINUTES A DAY—while your chest and shoulder muscles begin to swell . . . those arms and legs of yours bulge . . . and your whole body starts to feel "alive," full of zip and go—INSIDE and OUT!

FREE Illustrated 32-Page Book. Just Mail the Coupon.

Send NOW for my famous book showing how "Dynamic Tension" can make you a new man. 32 pages, packed with photographs, valuable advice, answers many vital questions. This book is a real prize for any fellow. Yet I'll send you a copy absolutely FREE. Just glancing through it may change your life! Rush coupon to me personally. Charles Atlas, Dept. 267-B, 115 E. 23rd St., N. Y. 10, N. Y.

CHARLES ATLAS, DEPT. 267-B,
115 East 23rd St., New York 10, N. Y.

Dear Charles Atlas:
Here's the Kind of Body I Want:
(Check as many as you like)

- ☐ More Weight — Solid—In The Right Places
- ☐ Slimmer Waist and Hips
- ☐ Broader Chest and Shoulders
- ☐ Powerful Leg Muscles
- ☐ Powerful Arms and Grip
- ☐ Better Sleep, More Energy

Send me absolutely FREE a copy of your famous book showing how "Dynamic Tension" can make me a new man. 32 pages, crammed with photographs, answers to vital health questions, and valuable advice. This does not obligate me in any way.

NAME..... AGE.....
(please print or write plainly)
ADDRESS .....
CITY..... STATE.....

TEST of character in this changing world is the way you react to new situations. Miss Grace Miller stands up well under that test. She likes her present job as crew dispatcher in the Lehigh Valley's Tifft Terminal at Buffalo. Of course, it wasn't easy for her to give up a job she'd held 39 years. Grace went to work for the Valley in 1917. She was assigned to the Chicago Street interlocking tower in Buffalo and remained there until last fall, when it was razed to make room for the New York State Thruway.

Miss Grace Miller

In 1917, when the tower was still new, its 104 levers gleamed with chromium finish. Flashing white lights that shone above the controls indicated the position of each train between Buffalo and Depew. Just like a woman, Grace kept potted flowers in the tower windows, and when she left she took them with her. Some cold days she'd look out those windows and see 100 men in sweaters and mackinaws clearing the tracks of snow. She remembers, too, feeling sorry for the engine crews exposed to wintry blasts in Mother Hubbard cabs. "They'd come into the tower to thaw out," she says, "and I would give them hot coffee." ●

VERY FEW private railroad passenger cars are left in America. One of them, antique but still usable, belongs to the 82-year-old former board chairman of Anaconda Copper, Cornelius F. Kelley, Manhasset, N.Y. Recently Mr. Kelley had his chariot coupled behind Baltimore & Ohio trains for a round trip between Jersey City, N.J., and Louisville, Ky., to attend the wedding of a grand-daughter. ●

NEW RECORD-BREAKERS. Two 1800-hp. tandem diesel locomotives that develop more tractive effort than any other 1800-hp. units in the world have been built by Alco for the Oliver Iron Mining Division of U.S. Steel Corporation, Duluth, Minn., and are now being used for transfer work at open-pit mining operations in the great Mesabi Iron Range.

Classification of the multiple-unit locomotives as having more tractive effort than any other units with the same, or less, horsepower is based on their eight traction motors. These develop continuous tractive effort of 92,000 pounds and starting tractive effort of 108,000 pounds at 22 per cent adhesion. Four of the traction motors are located on the lead unit and four others are on the booster.

The complete job consists of a DL-430 Alco 900-hp. switcher and the booster, Alco's DL-431. The latter unit has no cab, but depends upon the DL-430 locomotive for control.

These locomotives operate on maximum grades of 5 percent and on track with curves up to 25 degrees. They will work in temperatures from 40 below to 100 above zero, and are geared for a maximum 60 mph speed. ●

WHICH of the seven *Photos of the Month* in this issue do you like best? Readers will please list their choices in a letter or card. Jot down all seven page numbers, 15 through 21. in the order of your preference, to guide us in selecting pix for future use. "Watching the trains go by" (page 17) is the first and only photo that amateur cameraman Robert C. Malone ever sent to a magazine. It's unusual and it tells a story. We are curious to learn how you like it. ●

SOUTHERN PACIFIC'S president, D. J. Russell, writes: "Our philosophy of passenger service is:

"(1) We want to operate passenger trains that the public will support.

"(2) We do not want to operate trains which the public does not need, does not use, and which cause losses. This, we think, is an economic waste.

"(3) We want the trains we do run to be the best in the country." ●

EMPTY WATCH-CASE. That item we printed recently about the boomer hoghead who carried an iron washer, attached to a watch-chain, in his pocket in place of his hocked timepiece recalls an incident to Harry B. Chase, 18 Beech St., Mansfield, Mass.:

"About ten years ago, on the New Haven, the head-end crew of the Providence-Framingham freight got together during a stop to compare watches and argue over whose ticker was 10 seconds fast or slow. A spare man pulled out his Hamilton, but held it close to his vest and was reluctant to commit himself when asked for his version of the correct time. At length he revealed his secret: he had hocked his watch but, to keep up a bluff, was carrying the empty case." ●

GREATEST ADVANCE IN SHOP-METHOD HOME TRAINING

EARN MORE MONEY... GET INTO TELEVISION ELECTRONICS—RADIO

Learn ALL 8 PHASES in ONE MODERN HOME-STUDY COURSE

At Home — In Spare Time

YOU GET ALL THIS NEWEST PRACTICAL EQUIPMENT

- Parts to build a modern TV set, including all tubes plus a large screen Picture Tube
- Parts to build a powerful Superhet Receiver, standard broadcast and short wave
- Parts to conduct many experiments and build Continuity Checker, RF Ocillator, TV Circuits, Audio Oscillator, TRF Receiver, Signal Generator
- A Valuable Professional Multitester

19 BIG KITS YOURS TO KEEP

YOUR NATIONAL SCHOOLS TELERAMA COURSE COVERS ALL 8 PHASES

1. TELEVISION, INCLUDING COLOR TV
2. RADIO, FM AND AM
3. INDUSTRIAL ELECTRONICS
4. SOUND RECORDING AND HI FIDELITY
5. PREPARATION FOR FCC LICENSE
6. AUTOMATION
7. RADAR AND MICRO WAVES
8. COMMUNICATIONS

YOU ARE NEEDED IN THE TELEVISION-ELECTRONICS-RADIO INDUSTRY! You can build a secure future for yourself if you get into Electronics NOW! Today's shortage of trained technicians creates tremendous opportunities. National Schools Shop-Method trained technicians are in constant and growing demand for high-pay jobs in Broadcasting and Communications, Electronic Research, Servicing and Repair, and many other branches.

Let National Schools, a Resident Technical School for over 50 years train you for today's unlimited opportunities in electronics! Our Shop Method trains you to be a MASTER-TECHNICIAN. Completely up to date, developed by experienced instructors and engineers, your Telerama Course will teach you all phases of the industry quickly, clearly and correctly. You can master the most modern projects, such as Color TV, printed circuits — even prepare for FCC License without taking a special course. You can handle sales, servicing, manufacturing, or make good money in your own business. SEND FOR FACTS TODAY!

EARN AS YOU LEARN. Many of our students earn their entire tuition and more in Spare Time jobs we show them how to do while learning.

YOU GET EVERYTHING YOU NEED — Clear, profusely illustrated lessons, shop-tested manuals, modern circuit diagrams, practical job projects — all the valuable equipment shown above — many other materials and services — consultation privilege with our qualified staff, and Graduate Employment Service. EVERYTHING YOU NEED for outstanding success in Electronics.

RESIDENT TRAINING AT LOS ANGELES

If you wish to take your training in our Resident School at Los Angeles, the world's TV capital, start NOW in our big, modern Shops, Labs and Radio-TV Studios. Here you work with latest Electronic equipment—professionally installed—finest, most complete facilities offered by any school. Expert, friendly instructors. Personal attention. Graduate Employment Service. Help in finding home near school—and part time job while you learn. Check box in coupon for full information.

MEMBER NATIONAL HOME STUDY COUNCIL — NATIONAL COUNCIL OF TECHNICAL SCHOOLS 1944

FREE! Fully illustrated "Career" Book in TV-Radio-Electronics. PLUS actual sample lesson—yours at no cost, no obligation. CLIP COUPON NOW . . . MAIL IT TODAY!

APPROVED FOR G.I. TRAINING

NATIONAL SCHOOLS

4000 S. FIGUEROA ST., LOS ANGELES 37, CALIF.
187 N. LA SALLE ST., CHICAGO 1, ILL.
IN CANADA: 811 W. HASTINGS ST., VANCOUVER, B. C.

NATIONAL SCHOOLS

TECHNICAL TRADE TRAINING SINCE 1905
LOS ANGELES 37, CALIFORNIA

GET FAST SERVICE—MAIL NOW TO OFFICE NEAREST YOU!

NATIONAL SCHOOLS, DEPT. R3F-37

4000 S. FIGUEROA ST. LOS ANGELES 37, CALIF. — OR — 187 N. LA SALLE ST. CHICAGO 1, ILL.

Rush free TV-Radio "Opportunity" Book and sample lesson. No salesman will call.

NAME _____ AGE _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

☐ Check if interested ONLY in Resident School training at Los Angeles.

VETERANS: Give date of Discharge _____

Hand Carved AFRICAN Animals

Handsome Decorative Pieces for the Home.

These distinctive, native crafted pieces depict the animal legions of the famed Ruwenzori range . . . the deadly lion, the sleek Eland, two-ton Rhino, the Belgian Congo elephant, stately giraffe, and the fearsome alligator.

Each piece is individual in workmanship, in Mvuli, Musharagi and other magnificently grained African hardwoods. Wonderful for the home or any outdoorman.

$3.95 each

or 3 for $10

State items desired. Send check or M.O., we pay postage.

SORRY NO C.O.D.s

A—GIRAFFE	10 inches high
B—ELAND	5x7 inches long
C—LION	5x7 inches long
D—ELEPHANT	5x7 inches long
E—RHINO	5x7 inches long
F—ALLIGATOR	10x12 inches long

QUALITY BAZAAR, Box 683
Grand Central Station, N. Y. 17

Please send me ..... Enclosed
$.....in full payment, including postage.

Name.....

Address.....

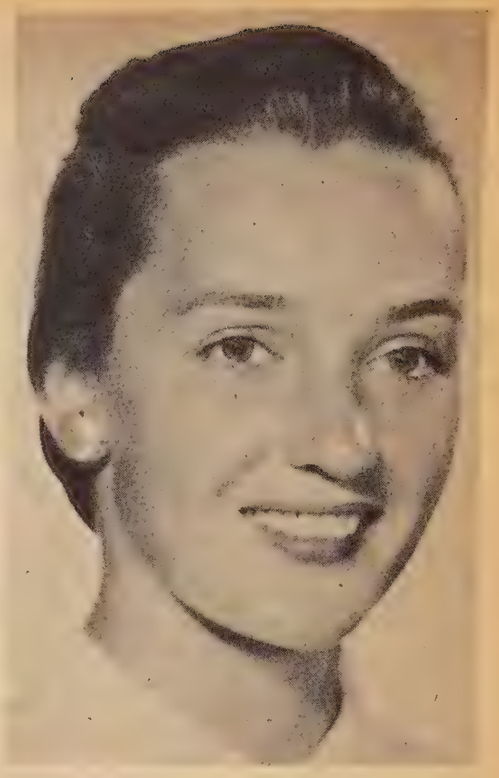
City.....Zone.....State.....

MISS RAILROAD MAGAZINE of the month is Sheila Murphy, age 21, an unmarried lass with honey-colored hair who recently became a hostess on the New York Central's *20th Century Limited.*

There are six "Girls of the *Century,*" as they are called, but Sheila is the only one who comes from a railroad family. Her father, Bartholomew Murphy, is a power-distribution maintainer for the New York City Transit Authority and is one of the 200-odd men who maintain the city subways' "third rail."

"I'm excited about my job," she says, "because nothing stimulates me more than people and I meet all sorts of interesting personalities on my trips between New York and Chicago. By the end of my first year I will have traveled more than 34,000 miles between our two biggest cities."

The Girls of the *Century* watch over the safety and comfort of passengers, especially children and the aged; they answer questions about the railroad and the scenery, do typing jobs, send telegrams, and place radio-telephone calls. Each has a college background. They replace the *Century's* traditional male secretaries, who have been assigned to other duties. Sheila lives at 1112 Dean St., Brooklyn, N.Y. ●



Train hostess Sheila Murphy is one of half a dozen "Girls of the *Century.*"

INTERNATIONAL. The Dominican Republic on the island of Haiti has a 42-mile railroad that was financed by the Dutch, built by Belgians, has British bridges and United States rolling stock, and is owned by the Dominicans and operated by Americans. ●

OVERSEAS. In Egypt, camels are almost as common as people aboard some passenger trains. Each second-class coach has a compartment at one end reserved for them.

Luxembourg cannot afford to maintain a locomotive on its short stretch of electrified railroad, so neighboring countries have solved the problem. French locomotives serve one section of Luxembourg, Belgian locomotives another.

If you ever board the Soviet *Blue Express* at Berlin for a trip to Moscow, you'd better take along sandwiches. No food is served on board the train during the first 23 hours of your two-day trip. Not until you reach Brest, on the Polish border, will a diner be coupled on. "Why is this?" you ask. Well, the Russians prefer to be paid in rubles, and there just aren't enough rubles available in Berlin to make dining-car service profitable before you enter Poland.

A station employe on the Japanese Railways wants to hear from U.S. and Canadian railroaders, especially station employes. He is 22 years old, writes English, and subscribes to *Railroad Magazine* so as to learn about American operation. He is Sinichi Miyazaki, 1299 Ohno, Inaba-Cho, Inabagun, Fifuken, Japan.

The German Federal Railroad has established "Mother and Child" service in its modern aluminum express trains. These trains are made up of new coaches with side corridors and compartments. One second-class compartment in each train bears the sign, *Sonderabteil Frau und Kind,* and affords privacy to women traveling with small children.

From Sydney, Australia, came a recent visitor to our office, Frank Shennan, managing editor and proprietor of *Railway Transporation,* a lively and authentic monthly.

Readers wishing to engage in foreign correspondence and to swap railroad or trolley photos may do so—free of charge—by contacting the International Photo Exchange, B. Willemsen, Grutstraat 34, Doetinchem, Holland. ●

(Continued on page 71)

"We're looking for people who like to draw"

BY ALBERT DORNE

Famous Magazine Illustrator

DO YOU LIKE TO DRAW? If you do—America's 12 Most Famous Artists are looking for you. We want you to test your art talent!

Too many people miss a wonderful career in art—simply because they don't think they have talent. But my colleagues and I have helped thousands of people get started. Like these—

Don Smith lives in New Orleans. Three years ago Don knew nothing about art—even doubted he had talent. Today, he is an illustrator with a leading advertising agency in the South—and has a future as big as he wants to make it.

Harriet Kuzniewski was bored with an "ordinary" job when she sent for our talent test. Once convinced that she had the makings of an artist—she started to study art at home. Soon she was offered a job as a fashion artist. A year later, she became assistant art director of a big buying office.

Pipe-fitter to Artist

John Busketta is another. He was a pipe-fitter's helper with a big gas company—until he decided to do something about his urge to draw. He still works for the same company—but as an artist in the advertising department. At a big increase in pay!

Don Golemba of Detroit stepped up from railroad worker to the styling department of a major automobile company. Now he helps design new car models!

Salesgirl, Clerk, and Father of Three Win New Careers

A West Virginia salesgirl studied with us, got a job as an artist, later became advertising manager of the best store in Charleston.

John Whitaker of Memphis, Tenn., was an airline clerk when he began studying with us. Two years later, he won a national cartooning contest. Recently, a huge syndicate signed him to do a daily comic strip.

Stanley Bowen—a married man with three children, unhappy in a dead-end job—switched to a great new career in art. Now he's one of the happiest men you'll ever meet!

Profitable Hobby—at 72

A great-grandmother in Newark, Ohio, decided to use her spare time to study painting. Recently, she had her first local "one man" show—where she sold thirty-two water colors and five oil paintings.

Cowboy Starts Art Business

Donald Kern—a cowboy from Miles City, Montana—studied art with us. Now he paints portraits and sells them for $250 each. And he gets all the business he can handle.

Gertrude Vander Poel had never drawn a thing until she started studying with us. Now a swank New York gallery exhibits her paintings for sale.

How about you? Wouldn't you like to trade places with these happy artists?

Free Art Talent Test

We want to help you find out if you have the talent for a fascinating money-making art career (part time or full time). We'll be glad to send you our remarkably revealing 8-page talent test. Thousands formerly paid $1 for this test. But we'll send it to you *free*—if you sincerely like to draw. No obligation. But mail coupon today.

America's 12 Most Famous Artists

ALBERT DORNE

NORMAN ROCKWELL

JON WHITCOMB

AL PARKER

HAROLD VON SCHMIDT

STEVAN DOHANOS

FRED LUDEKENS

PETER HELCK

ROBERT FAWCETT

BEN STAHL

DONG KINGMAN

AUSTIN BRIGGS

FAMOUS ARTISTS SCHOOLS

Studio 72, Westport, Conn.

Send me, without obligation, your Famous Artists Talent Test.

Mr.
Mrs. _____ Age ____
Miss (PLEASE PRINT)

Address _____

City, Zone, State _____

A message from a distinguished soldier: GENERAL JAMES A. VAN FLEET

Why our National Security Depends on Strong Railroads

"The railroads of the United States are a great basic military asset. They are as much a part of the military strength of the nation as our Army, Navy, Air Force, and Marines, because none of these great armed services could long operate without the logistical support which railroads provide."

So says General James A. Van Fleet, U. S. Army (Ret.), former Commander of the 8th Army in Korea.

"Therefore," he points out, "we have now and always will have vital need for strong, vigorous, progressive railroads, with reserves of traffic capacity and trained manpower upon which the Armed Forces can draw for their own combat and strategic requirements. *To maintain such a rail plant in readiness, it must be used in peacetime.*"

That's one vital reason why it is important to you – and to the nation – that our public policies should give to railroads equal treatment and opportunity with other forms of transportation. Then each form can do for you the things which it does best, and America's modern railroads will be able to serve you with increasing efficiency and economy.

ASSOCIATION OF
AMERICAN RAILROADS
WASHINGTON, D. C.

Photos of the Month

Winter rolands. One of the Canadian National's big, dependable, Northern-type steamers took over train No. 1, the *Super Continental*, after diesel power had failed in subzero weather. No. 6220 left Winnipeg 50 minutes late but pulled into Edmonton on time. Photo, taken at 28 below, shows 6266's rod springs being greased under trying conditions at Hargrayve, Ontario.

Don Wood, 29 Mounthaven Drive, Livingston, N. J.

This radio-equipped coal train is definitely not a "drag." Pennsy 6761 (Class M-1-B) is rolling along toward Enola, Pa.

Robert Malone, 71 W. 85th St., New York City

Watching the trains go by. What boy hasn't thrilled at the sight, sound, and smell of a railroad train? But in New York City the situation is complicated by the fact that most trains run underground. So this lad is doing his best to get a look at a subway train. Chances are he would rather exchange waves with a locomotive engineer in a cab, as his country cousin does.

All twenty-five of the Union Pacific's older gas-electric-turbine locomotives, such as this one (shown with a long string of loaded Pacific Fruit Express reefers), are being equipped with supplementary fuel tanks. The new gas-turbine-electrics now on order will be similarly equipped. Number 65 weighs 551,000 pounds and rates 4,500 horsepower.

William A. Coons, Union Pacific Railroad

"When you and I were young, Maggie," we rode in plain wooden coaches, with wooden blinds, and they were heated by coal stoves, like this Union Pacific car.

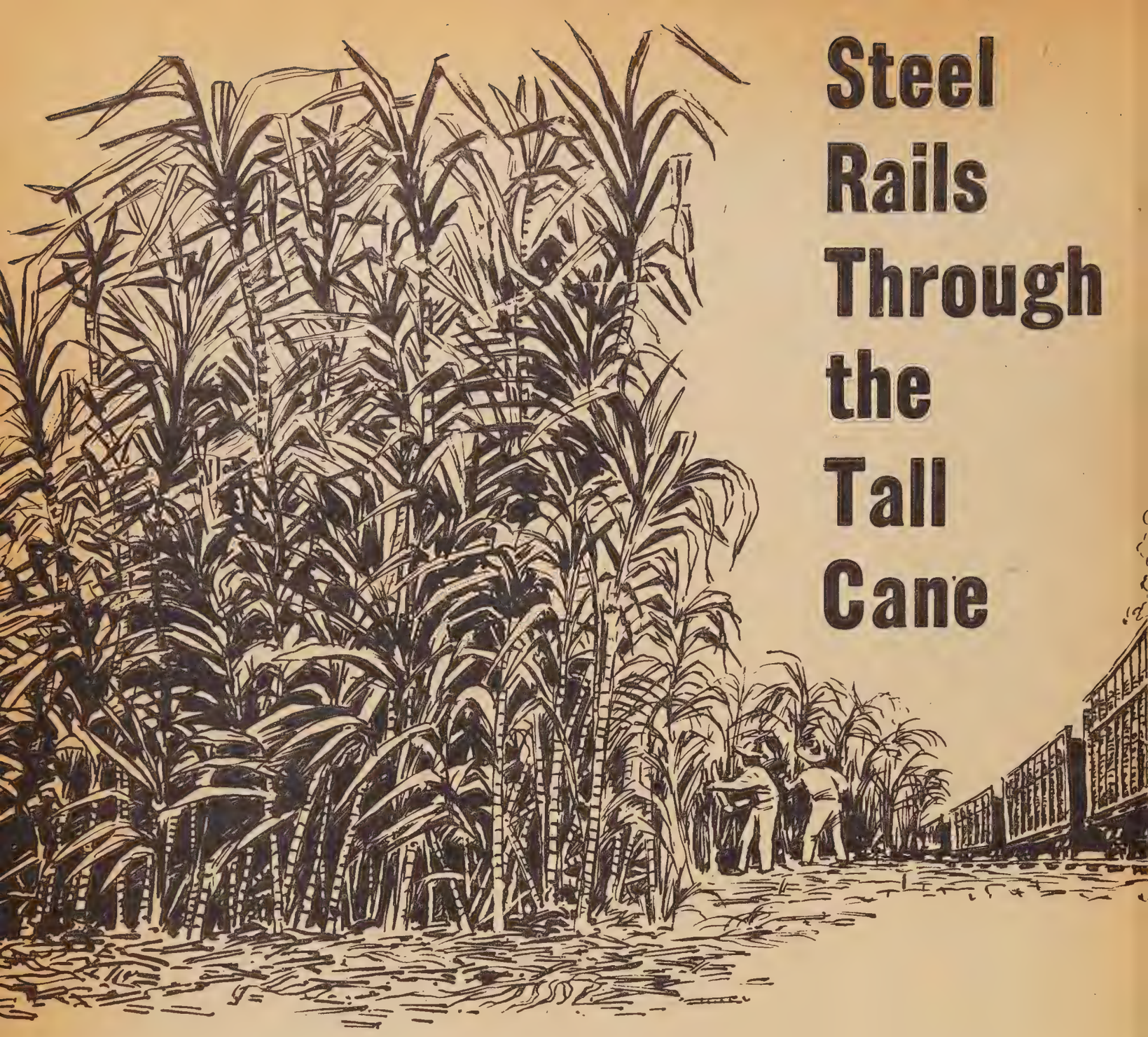
Firemen to the rescue! Cleveland firefighters, in a skiff, pluck two men from the roof of a Shaker Heights Rapid Transit car, marooned by a sudden flood. Torrential rain inundated parts of right-of-way with four feet of water.

Karl Rauschkolb, Cleveland Plain Dealer

William L. Middleton, 901 Clarence Ct., Madison, Wis.

Illinois Central's only entry into the Badger State is the 62-mile bronch from Freeport, Illinois, to Madison, Wisconsin. In the halcyon days of steam power a 2-8-0 wheeled merchandise over the branch in a daily round trip. Baldwin Locomotive Works built her for the old Vicksburg, Shreveport & Pacific. When the IC took over, it rebuilt her and equipped her with an extra large tender so that she could complete the run over the freight branch in both directions without the need for refueling.

Steel Rails Through the Tall Cane



You Can Still Find a Few Sugar-Plantation Railroads Left in the Southern States

by Charles Morrow Wilson

IT'S A PRETTY sight to see engine smoke curling above wind-waved, blue-green miles of tall sugarcane. It's good to know that the steel rails, whether narrow or standard gage, are getting shiny again from use after many months of idleness and rusting in hot sun and drenching rain. Good, too, to watch the strings of topless, side-railed cars piled high with freshly cut cane.

Before we can have sugar on our tables and in various deserts, confections, and soft drinks, to rot our teeth and boost our dental bills, railroads must carry it to the mills—at least 20 pounds of trimmed cane for every pound of sugar. Of course, a sizeable amount of sweetening comes from beets and some from maple trees, but we are considering only cane products. To move cane, railfaring men are often called upon to tackle the unexpected, such as fires and floods, and the impossible, such as making a plantation line pay its way during the short season, from three to ten weeks per year.

Sugar railroading in theU.S.A. began with Angelo Dumois, a fiery little Cuban. He was olive-skinned, black-haired, and black-eyed, and he moved to the States to become an American citizen and, at age 26, the father of our cane railroads. Said he: "To get in the cane, the sugar railroad must crawl with the oldest and roll with the newest things on wheels."

Between 1888, when Dumois began building our first sugar line on his plantation near Bay St. Louis,

Out of the 130 *That Were Sparked by the Father of Sugar Railroading, Angelo Dumois*

Mississippi, and 1916, when he supervised the Preston sugar railroad which hauled a million tons of Cuban cane to the mills in twenty-three days—a world's record—this human dynamo made a lot of railroad history, and all of it with the sweet stuff. Dentists should erect a monument to him.

Today, relatively few people outside of the industry are aware that America has any sugar railroads at all, but southern Louisiana alone has seven. One such road is the six-mile narrow-gage pike on the old Belle Helene sugar estate out from Baton Rouge, which has become almost a legend to the agricultural students of Louisiana State University. Many tales are told of this mud-splashing back-down and drag-in cane line and its rebuilt Heisler locomotive, nicknamed "Old Belly Helly."

It was 1898, the year of the Spanish-American War, when Belly Helly pulled her first load of cane through the semi-jungles of Louisiana. But ten years before that, Angelo Dumois was personally laying 25-pound steel on his own narrow-gage line, with standard-gage crossties, and would soon start running the 30-ton trains which in those days were hightime sugar railroading.

Dumois harvested his first crop in November, 1888, and loaded it into three seven-ton wooden cars. For motive power he bought two identical British-built Eight-wheelers and named each of them *El Panchito*. One engine he used at home. The other he shipped to relatives in Cuba who also were in the sugar business. Those kinfolk established the Banes Railroad on the island, stretched it

out to 170 miles, and eventually merged it with a 177-mile line, making it the biggest sugar carrier of all.

That second engine is treasured to this day by owners of the Banes road and is occasionally fired up for a cane rush. You should see the old girl in action! Her capped stack belches sparks and billowing black smoke, but its height, six feet, keeps the cinders out of the engineer's face. She's a one-man job. No fireman, unless he and the hogger were midgets, could fit into the tiny cab. *El Panchito* weighs, with tender, 14,000 pounds. She has two 16-inch-stroke cylinders and an oil-sealed gear housing and she burns coal. Dumois had hoped the two engines would burn briquettes of *bagasse*—the bone-dry leavings of milled sugarcane—but the firebox was too small for that.

The hogger does his own firing and serves as brakeman and usually load boss as well. All of which keeps him as busy as a swamp visitor slapping mosquitoes.

Dumois had a dry sense of humor. Like his stiff-necked neighbors, he was a plantation owner, but he made them squirm by referring to himself as a freight engineer. He wasn't too happy in Mississippi. In time he sold his land near Bay St. Louis, bought a Ponchatrain spread in Louisiana, and ferried *Panchito* and her little family of cars across the broad blue Mississippi. Then he set to work building 25 miles of new railroad, a three-foot-gage line like the first one but laid with 40-pound steel and boasting five field branches.

Other cane growers followed his example, and as time went on they built about 130 sugar railroads in the Southern states. Nearly all of these were known as "estate lines"; they averaged about four miles apiece and very few had more than ten miles of track.

For the most part, sugar lines were farm properties, used for the late fall cane harvest and operated on an amateur basis. Only the largest of them had locomotives. The others depended upon teams of mules or oxen to pull their small loaded flat-cars or open gondolas to the mill. Even those primitive lines were better than dirt highways, especially during the semi-tropical rainy season, when rails permitted the hauling of cars across the low wet fields.

Some big outfits, such as Godcheaux and Tulane Successors, in Louisiana, and what presently became the United States Sugar Corporation in Florida boasted up to 50 miles of operative narrow-gage trackage. The U.S. Sugar's Edgewater line was presently to become standard gage, but sugar railroads as a whole were "crawling with the oldest."

A crop which weighs out about 20 tons of stripped cane to the acre and covers some 2,000 acres needs considerable hauling. Yet in most cases the growers were farmers from choice but railroaders by guess and grumble. Dumois was the other way

Angelo Dumois, the father of American sugar railroading, loved wild animals. His last known portrait, taken at New Orleans shortly before he died in May, 1936, shows him holding a little fawn.

(Below) Present-day sugarcane mill, showing type of railroad car that is used.

A typical sugarcane mill in Louisiana looked like this in the days when mules drew a string of sleds loaded with freshly cut cane over the ground from the plantation to refinery.

America's sugar-refining industry was started by early Dutch settlers in New Amsterdam, which is now New York City.

around. He loved railroading — so much so that he resolved to develop sugar plantings vast enough to support a railroad that would "roll with the newest." Selling his Ponchatrain estate and rail line, he moved again, this time into what was becoming the "new sugar bowl" in the marshy flood plains of southwestern Louisiana. Then he began buying and reclaiming fine cane lands and building his Plaquamines road which he set out to make a real railroad.

Within three years he was "sogging" 41 miles of pretty fair trackage, which linked two neighboring plantations with his own. He added a third rail to his track, thus making a double gage and opening the way for heavier engines and cars. He improvised equipment by railing up flatcars to make them hold 12 tons apiece. It was a big step forward, although present-day cane cars have a 20-ton capacity.

Then he assigned his little pet, *Panchito,* to hauling cane for his neighbors, while he himself operated a cut-down old Heisler with a string of 16 cars tied to her tail. Still not satisfied, he later paired the Heisler with a revamped Baldwin Twelve-wheeler, handling the throttle personally on the Baldwin during the fall rush.

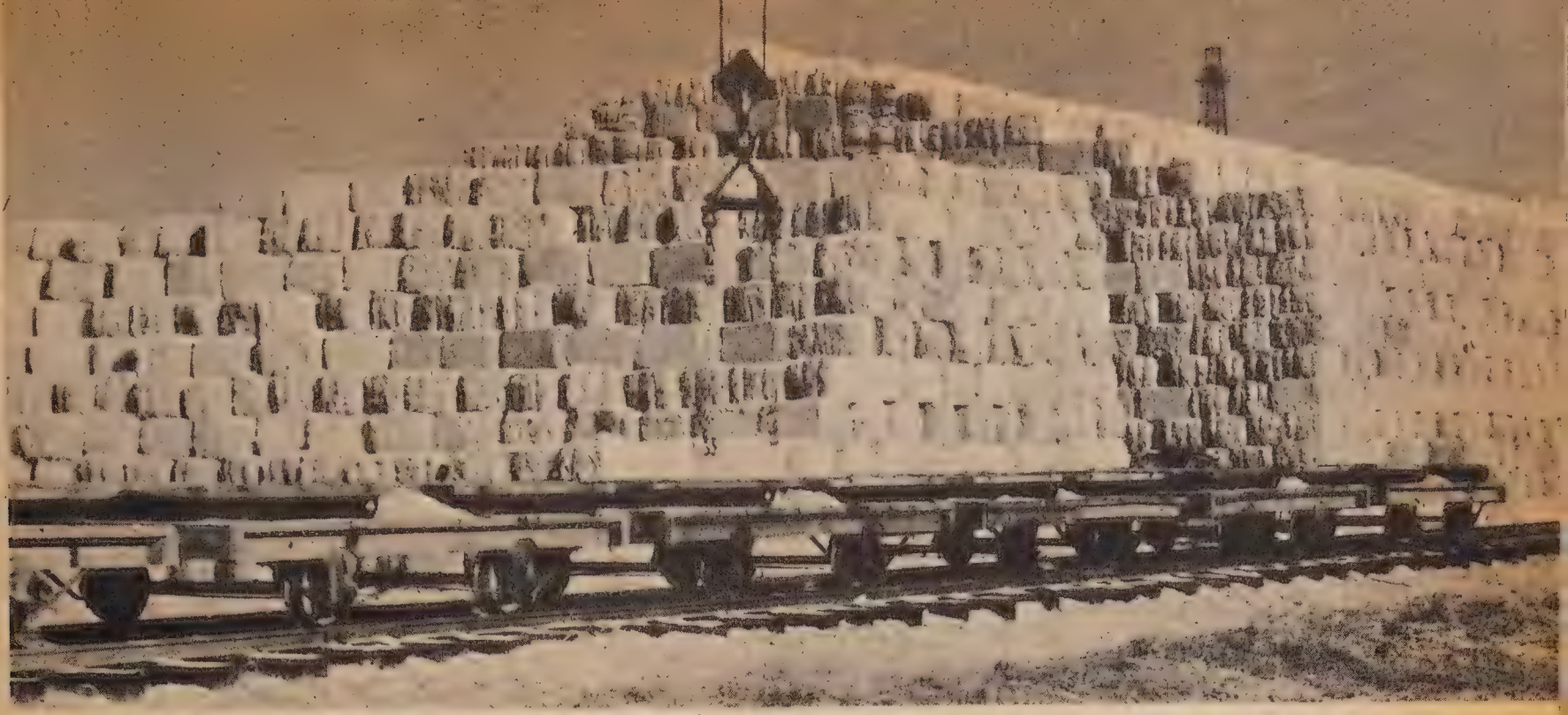
This was really rolling with the newest—the newest, that is, in sugar railroading. The arrangement should have handled Dumois' 4,000 acres of cane with ease, but a big mill gobbled up the harvest faster than wheels could bring it in.

Dumois analyzed the situation and traced its weakness to delays in loading and unloading. Thereupon he devised sliding and collapsible car sides. That helped a bit, but the manual loading from field carts to railroad cars was still a bottle-neck. So the wizard of sugar railroading helped to develop a loading boom, powered by a stationary steam or gas engine, and this device soon became standard equipment in the sweet industry.

His next move was to equip the towering booms with scales, which facilitated the hauling and milling of cane grown by small farmers. All that his neighbors had to do then was deliver their crops at prescribed sidings, where they could be loaded automatically and paid for promptly in refined sugar at millside.

These changes were good railroading and good sugaring, especially since multi-tandem mills of huge capacity were being built to grind up to 10,000 tons of cane per day. But by the turn of the century, with the Cuban product offering strong competition, it became clear that only great mills backed by railroads capable of feeding them could save

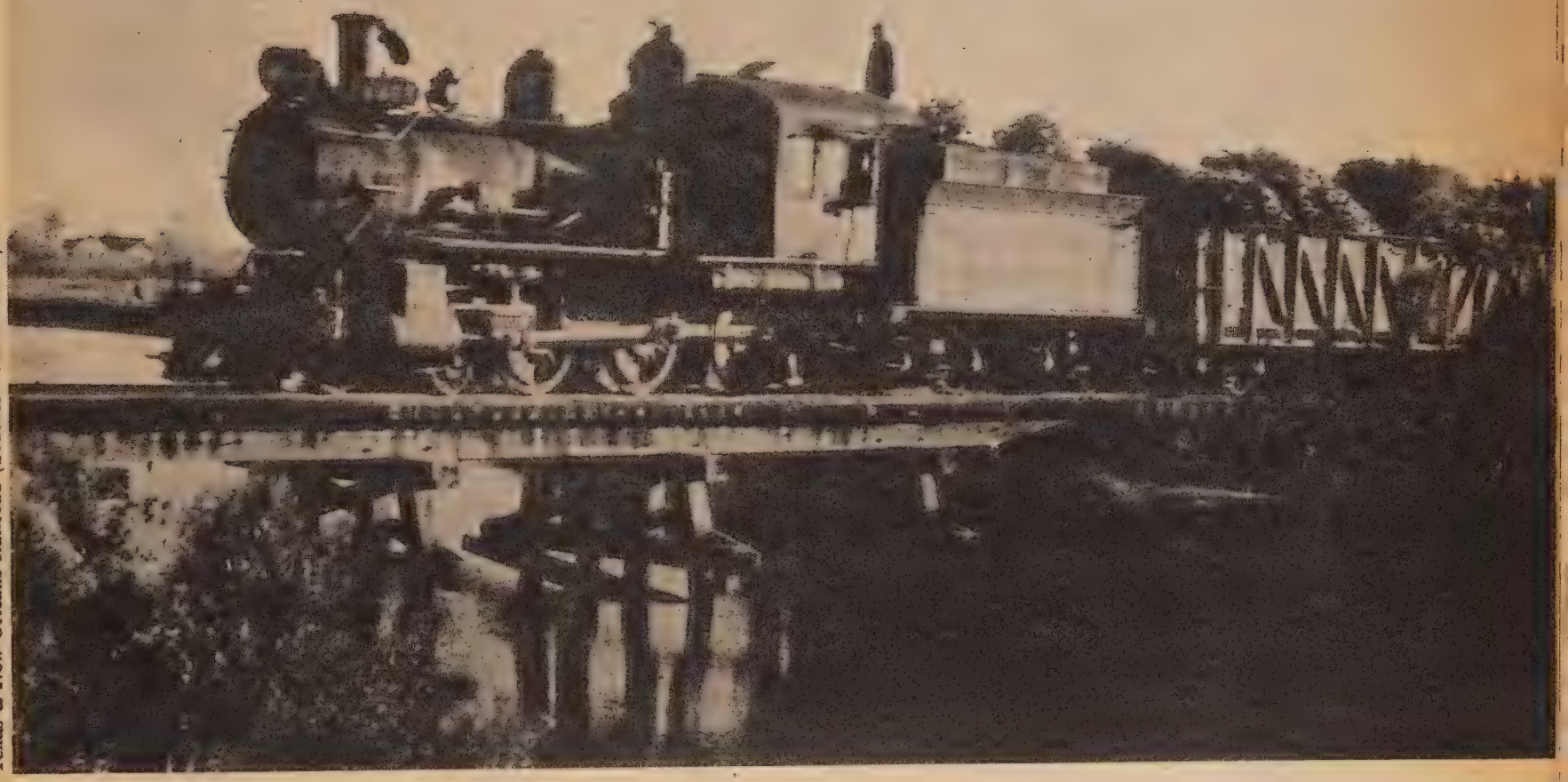
(Above) A relic of past glory, rusting her heart out. Years ago cane refineries and fields heard the sharp cough of innumerable steam locomotives as they hauled cane from the fields and transported sugar to the larger railroad sidings. (Below) Angelo Dumois bought two engines which he named *Panchito.* One is still extant.



Sugar Information, Inc., New York City

Looking like an ageless Pyramid beside the Nile, this massive pile of baled cane waits at a railroad siding to be loaded onto long strings of flatcars and taken to a refinery mill for processing. Wonder how many cups of coffee it would sweeten?

The late afternoon sun slants down on Erath Sugar Company's one and only locomotive, a high-domed Ten-wheeler. Inbound from a plantation with eleven cars of cane, the sturdy old engine crosses the bayou and heads for a siding. She is the last steamer you can find working in the cane country around New Iberia, Louisiana, and the crew members are proud of her.



Texas & New Orleans Railroad (Southern Pacific Lines)

the American sugar industry. At the same time the sugar men recognized that branch lines to sugar farms were indispensable.

Never let it be said that Angelo Dumois was one to be left behind in the march of events. His dark eyes shone with fire, while years of experience had sharpened his wits. He met the Cuban challenge, in part, by building feeder lines to and on other plantations. This called for better roadbeds. By 1910 he was pioneering the Buoyrus dredge shovel, mounted on a flatcar, to replace section workers of the old school, and he was the first man to use hard crushed rock ballast on a sugar railroad.

In 1911 he built the first single-span bridge across Macari Bayou in Louisiana. Though truly radical for its time, this type has since become standard in Cuba's sugar railroads.

Texas & New Orleans Railroad (Southern Pacific Lines)

(Above) Southern Pacific cane car reaches end of line, Dubein, Louisiana. Pulling a string of empties it will pick up full cars, push them onto main track, and drag empties onto siding. While one brakeman signals his engineer, conductor and another brakeman bring waybills to planter. (Below) Field hands start unloading.

Next he astounded the industry by introducing cement piers as substitutes for wooden piles. Today, the cement pier has become a sort of trademark for the big sugar roads. The same is true for the double-end switch which Dumois also installed on his Plaquamines line.

Prior to these developments, the sugar carriers were mostly single-tracked lines built from mill yards out through the broad fields. The operation had been largely a matter of spotting the cars, loading them from field carts or mud sleds, buffing them into a string and pulling the string to the mill yard. Dumois changed all that. He also adopted modern principles of switching and siding.

It is interesting to speculate what the genius of American sugar railroading might have accomplished if bigtime sugaring had not, by that time, "gone to the islands," where climate, soils, labor costs, and long-lived cane more or less compelled it to go.

When that trend became inevitable, Dumois also switched. He became an international sugar consultant for locating, building, and extending large sugar lines in the Philippines, Mexico, and Cuba. He played a leading role in broadening the gage of the Mexican National, and he introduced into Cuba 5,000-ton cane trains and the now standard Western 20-ton cane car.

The Dumois era, which ended with his death in 1936, was an exciting and eventful span of railroad history. It saw mules and oxen replaced by steam locomotives, which in turn were to be succeeded by diesel-electric power. As for oxen, it may surprise some readers to learn that even today in many sugar lands, including lower Louisiana, Brahmin draft cattle are used here and there for "getting in the cane."

In the early days of steam operation the biggest sugar railroads were akin to the logging roads, but usually got by with even sloppier roadbeds and even older hand-me-downs of rolling stock. On such important lines as the Godcheaux and the U.S. Sugar Corporation the Baldwin Ten-wheeler was a special favorite. Even today, U.S. Sugar is using one Ten-wheeler in addition to its modern diesels.

The locomotive type known as the Corbin Tropical Planter did the job very well indeed, but relatively few of them were operated in the United States. You could have seen plenty in the Caribbean lands, where even now an occasional Corbin type chugs through cane so tall that it screens from sight all of the engine except her high stack and her squirrel-plume of coal smoke.

The American geared locomotives —Heislers, Climaxes, and a few old-time Shays—did yeoman's duty in hauling the cane; and, except for the Shays, which seem to have faded away, they still do. Those oldtimers could stay on rough tracks and wavy roadbeds. They could, and did, survive a lot of derailments, and they stood up well under a round-the-clock grind of getting the cane to the mill.

Because of the seasonal nature of sugar railroading, the larger roads had to depend upon boomer engineers — seasoned railroaders who drifted from one part of the country to another to help move the various crops in turn. Never mind what kind

Sugar Information, Inc., New York City

A large proportion of the sweetening we eat comes from sugar beets such as these. America's Class 1 railroads move more than eight million tons of this crop a year in about 186,000 carloads. Central factories extract the sugar-bearing juices.

Preston Railway engine-shed in Cuba: steam power lined up in readiness for the day's work of hauling sugarcane.

of record a boomer had made elsewhere, if he wasn't bluffing when he said he could run a locomotive he was hired and put to work for the brief sugar season.

Dumois catered to the boomers. Sugar railroads, as a rule, never used cabooses; but in 1915, while Dumois was directing the Godcheaux Orleans line, he actually coupled a crummy to his string of cane cars so that what he called the "traveling men" could feel at home. And during the loading waits and the dank night runs he saw to it that a pot of steaming coffee or a bucket of fresh hot soup was available to all.

A variation of sugarcane is sorghum cane, from which molasses is made. The story is told how Bill Gruhlkey, a Rock Island roadmaster on the old Amarillo Division in Texas, built up his roadbed from buttermilk consistency to some degree of firmness, many years ago, by buying endless bundles of sorghum from a trackside plantation at half a cent per bundle and hiring farmers to haul them to the track.

Section workers buttressed up the track in this way for a thousand feet through a cut. When Engineer Bill Surrows pulled No. 93 up just east of the cut, he yelled to the roadmaster, "That molasses roadbed of yours can never hold this train!"

"I think she will," Gruhlkey shouted back. "Let's give her a try!"

So out went No. 93, a Class 1400 engine, onto the sorghum. And, in Gruhlkey's own words, "She didn't slip and she didn't sway. Ninety-three went right on through!"

It was all the proof he needed. The roadmaster and his crew then loaded 34-foot flatcars with the cane and took them on down the line. At every curve, slide, or cut they repeated the process, and in a week the roadbed was firm again and trains were running on schedule. Cane had saved the day. Thus Gruhlkey earned his nickname "Sorghum Bill."

That, of course, was not sugar-plantation railroading. Most of the little roads that Angelo Dumois fostered have since gone from the American scene. Today, our cane products are largely imported. Class 1 roads haul about ten million tons of sugar a year in over 235,000 big carloads, and over eight million tons of sugar beets in nearly 186,000 carloads, as our "sweet tooth" becomes more insatiable and our dental bills keep rising. Is it any wonder that a perfect set of teeth among high-school boys and girls is as rare as an egg with three yolks, while bridgework is the rule, rather than the exception, in the mouths of middle-aged and elderly people?

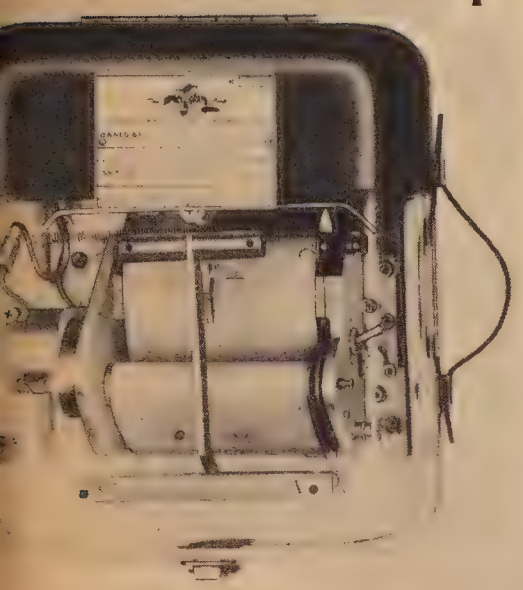
It is not the function of the railroad industry to set up nutritional standards. The roads haul freight impartially. Only the consumers decide what is ultimately done with that freight. Within limits, sugar has its value. Nobody denies that. And the roads, both large and small, have done a great job for our national economy by making so many products available to the public.

In one way or another, especially in Cuba, the sugar railroads are still taking cane to the mills. The sweet drippy scent of freshly cut cane still mingles with the acrid smell of engine smoke and hot oil. Still shines the tarnishing rails, in season, till they glint like streaks of fire in the near-tropical sun . . . steel rails through the tall cane. ●

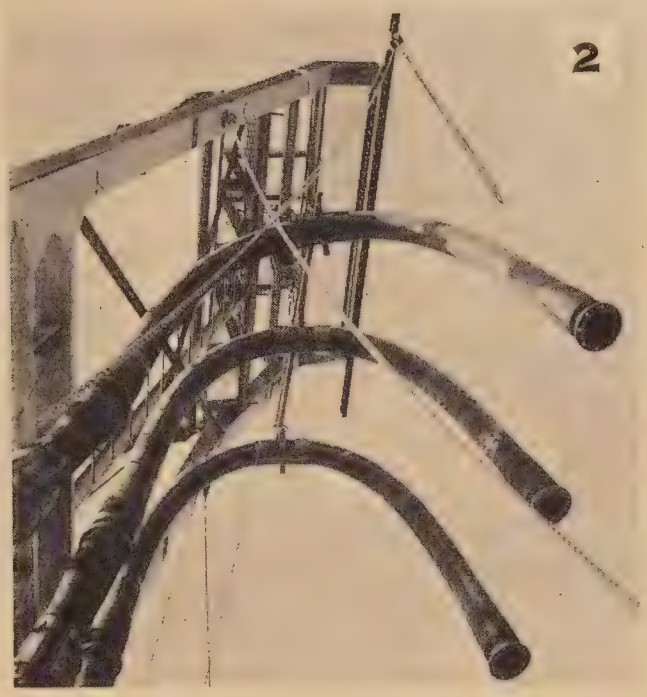
TEST YOUR RAILROAD KNOWLEDGE

HOW MANY OF THESE FIVE OBJECTS OR SCENES CAN YOU IDENTIFY?

1



2



3

4

5

ANSWERS ON PAGE 82

HE FOLLOWED A HUNCH

Arthur E. Stillwell, Father of the Kansas City Southern, Was Guided by Intuition and a Desire to Help the Farmers

by Harold K. Vollrath

TRAIN DISPATCHER, LOUISIANA & ARKANSAS RAILWAY

LOOKING BACK over the years, at age 68, Arthur Edward Stillwell summed up his career in these words: "My goal was to build railroads to save the Midwestern farmers from unjust rates imposed upon them by transportation companies. I achieved this ambition with approximately 2300 miles of rail line—more railroad miles than the total built by any other living man."

He made that remark in 1927, after the death of James J. Hill and before Isaac B. Tigrett had pyramided a 49-mile turkey trail into the present 3,000-mile Gulf, Mobile & Ohio system.

Stillwell said also: "I organized 41 companies of different kinds, representing a combined investment of $60,000,000, and I have lived to see them pay out in excess of $160,000,000 in dividends and profits."

Quite a record! And this man's

Stillwell was proud of his sideburns but shaved them off when he lost control of the railroad he had founded.

story was not the proverbial guff of "rags to riches." His father was a well-to-do jeweler of Rochester, N. Y., and his father's father had helped to build the Erie Canal and later the New York Central Railroad. So Arthur was reasonably well heeled, even at the start.

His grandfather would take the lad down to New York City to visit a personal friend, Cornelius Vanderbilt, the richest man in America, and Arthur would sit erect on a stiff-backed chair and listen to the two men discuss railroading. The tale is told that on one such visit the Commodore asked, "What is my little man going to do when he grows up."

"Your little man," said the precocious kid, "will go out West and build a railroad."

All who believes this tale, stand on your left ear! But the "little man" did get into railroading, after a fashion, at 18. He contracted to print 5,000 timetables a month for the Atlantic, Mississippi & Ohio (now part of the Seaboard Air Line), which was then operating without public schedules. Arthur was jubilant. His success in putting over that deal made him heady like a first drink of champagne, and he wrote letters to other companies soliciting their trade. Before long he was the official timetable printer for all of Virginia's railroads.

That, plus a lucrative flier in hotel advertising, netted him more than $2,000 a week. Not bad for a teen-ager in the year of the first big railroad strike, 1877, and Arthur lied about his age so as to get married when he was 18. The various roads he was connected with sent free passes over their lines for his honeymoon trip.

At 22 he moved to Kansas City, with his wife, to establish a trust company and build a railroad. At least, that's the reason he gave years afterward for his desire to head West in 1881.

"Having nothing more tangible with which to accomplish this purpose than $25,000 in bank and unlimited gumption," Stillwell reminisced, "this journey had all the trimmings of a fool's errand."

But he had made important contacts in the insurance business and he called upon some of them to back his play. He persuaded a group of moneyed men to organize the Guardian Trust Company and elect him president. The new setup flourished.

"I had founded the trust company," he wrote, "but where the railroad was coming from was more than I could see . . . I kept thinking, 'What a shame it is to force export grain 1400 miles east to the sea-

D. L. Ingersoll, Albuquerque, N.M.

With a fleecy gray smoke plume riding the sky, Kansas City Southern engines 562 (2-8-0) and 901 (2-10-4) highball a heavy freight near Siloam Springs in Arkansas.

Kansas City, Pittsburg & Gulf work train poses for a picture on the Arkansas River bridge. Two of the three figures on the car behind engine No. 5 are women.

The *Southern Belle*, pride of KCS and L&A, crosses United States highway 50 en route from Kansas City to New Orleans. Ten miles of track have 25 overpasses. (Below) Mural painting gives rail atmosphere to scene in observation lounge.

board, when there are unused ports to the south, 600 miles nearer!' "

Things reached a head on a blustery Tuesday afternoon in October, 1887. One of the Guardian's directors, Edward L. Martin, approached him dolefully.

"I have a franchise for building a belt line around eastern and southern Kansas City," said Martin, "but I haven't been able to raise a dime for this project. And now I'm worried. The franchise expires Friday and if I don't commence digging by then I'll lose it."

Stillwell asked, "How much money do you need to start the job?"

"About $350,000."

The young man considered a moment. "Who is a good contractor in this town?"

"H. C. Smith."

"Get him up here right way!"

An hour later they were seated across a green-baize-covered table from Mr. Smith, who said he owned 15 horse-and-wagon teams. Stillwell spread out a rough map of the proposed route.

"Mr. Smith," he asked, "if we wire you Thursday night to assemble your teams on the Bottoms near the Missouri Pacific line and to start digging Friday morning, will you do it?"

"I sure will," said the contractor.

STILLWELL and Martin took the next train to Philadelphia to raise the cash. Later, he recalled: "My companion would have been even less optimistic if he had known I was simply following a hunch, with not the slightest idea at the moment we left of what I intended doing."

But aboard the train, Stillwell's mind kept busy. It was his idea, we are told, to call the line the Kansas City Suburban Belt and to issue a total of $3,000,000 in stocks and bonds. Arriving in Philadelphia, the two men took up headquarters in the Guardian's local office, and from there Stillwell's magic touch induced some of the city's leading capitalists to put up the money for

Doubleheaded by KCS diesel No. 24 and a borrowed Monon steamer, No. 509, the *Southern Belle* climbs a steep grade.
Alan J. Dale, Milwaukee, Wis.

the Belt Line. They pledged more than a third of a million.

Mr. Stillwell said to his partner, "Telegraph Smith to start digging!"

Then he tipped off the newspapers, and the return to Kansas City was a Roman holiday. Once the railroad was organized with Martin as president and Stillwell as vice president, the directorships were divided between K. C. and Philadelphia, and the company began buying land for the right-of-way.

In December, 1887, they started grading at Second and Wyandotte streets, but more than three years passed before the first locomotive chugged over their rails. The difficulty in acquiring suitable land and hostility of two big railroads caused this delay. When the Belt Line workmen reached the Missouri Pacific, they tried again and again to lay a crossing frog, but each time the MP stalwarts beat them off. It took a court order to install that frog. Then came trouble at the Chicago & Alton crossover, but the Martin-Stillwell forces won that round also.

One of the land purchases made by the Belt Line was 160 acres in nearby Leeds at $160 an acre. Stillwell's friends considered it a crazy high price, but history has vindicated the deal. That same land today forms some of K. C.'s choicest industrial sites.

The new railroad, with 125 miles of track, operated through the Kaw, Blue, and Missouri river bottoms in both the Kansas and Missouri sectors, and kept on growing. First they took over the Union Terminal Railroad. Then in 1891 they built the Kansas City & Independence Air Line to serve what has since become ex-President Harry Truman's home town, and particularly to handle the passenger business to and from Stillwell's amusement park in Independence.

Also in '91, Arthur Stillwell was elected president of the expanding system. He was then a rather handsome gentleman of 32, with dark wavy hair, whiskers, and sideburns. Under his direction, the gleaming steel reached out its tentacles further and further. They took in Joplin, Missouri, where lead and zinc mines yielded freight revenue. As the railroad grew, so did Stillwell's ambition. He visualized a network extending as far south as the Gulf of Mexico, with an outlet to overseas shipping, and in 1893 he reorganized the company under the name Kansas City, Pittsburg & Gulf.

One day in 1894 he bought a 51-mile pike, the Kansas City, Fort Smith & Southern, from a rich Wyandotte Indian chief named Mathias Splitlog. The old redskin had built this road from Joplin to Sulphur Springs, Arkansas, with a spur to a gold and silver mine he owned. The mine turned out to be worthless and the line's sole revenue came from a few shipments of hardwood and an occasional passenger, so Splitlog was disgusted and sold his railroad for $50,000.

By this time the money panic of 1893 was making it hard for Stillwell to raise additional funds. But he managed to organize a construction company with $3,500,000 in capital stock and in the summer of 1895 he pushed his line down to Shreveport, Louisiana. Then he turned to Holland for money. So many Dutch investors responded that a number of towns along the line were given Dutch names. A mighty castle was built atop Mount Mena in Arkansas, overlooking the tracks, as a summer home for Queen Wilhelmina of Holland, but she never visited it, and as years fled the magnificent structure fell into ruins.

Meanwhile, the railroad continued to spread. It crossed the Ozarks on a two percent ruling grade. Helper service was required through the pass over Rich Mountain, and engine terminals were established at Heavener, Oklahoma, and Mena, Arkansas, to care for the additional motive power. On this mountain the road's first Mallets, the 700 series of 0-6-6-0's, went into service in 1912. They were patterned after the Baltimore & Ohio's highly successful engines of the same wheel arrangement.

The construction company did a great job. It actually built one-fourth of all the railroad mileage that was constructed in America that year. As the shining rails reached southward, they opened rich timber land, and the many lumber mills that sprang up along the route yielded lush revenue.

AT LENGTH, the railroad army progressed as far as the Sabine swamps on the Texas-Louisiana border and there they named a future town DeQuincey for one of the Dutch investors. Then they turned southeast to Lake Charles.

Early in '97 they made a trackage agreement with the Southern Pacific which permitted them to run trains between Lake Charles and Beaumont until the KCP&G could be completed. Stillwell's decision to build to Lake Charles was a wise one, for the station erected there became quite busy and the branch profitable.

A pioneer town, laid out on the Texas prairie bordering Lake Sabine's north shore, received the name Port Arthur in honor of Arthur Stillwell. Pretty soon a 20-mile rail line chartered as the Texarkana & Fort Smith was operating between that townsite and Beaumont. Then a subsidiary of the KCP&G dug a ship canal seven miles long that connected Lake Sabine with the Gulf of Mexico, and the road's last spike was driven by Stillwell himself at Ruliff, Texas, on September 11, 1897. That completed the "Route of the *Flying Crow*," as the road was later called.

Vanderbilt's "little man" was thus able to make good his promise to Midwestern farmers by lowering the freight rate on export grain from 26 to 16 cents per hundredweight. He even had freight ships ready and waiting for the grain at Port Arthur, upon completion of the road. By a strange coincidence, on the very day the canal was opened to traffic, a hurricane lashed the Gulf Coast. It wreaked millions of dollars in damage on Galveston shipping, but in the newly-built harbor of Port Arthur seven freighters rode out the storm in safety.

And then, at the peak of his triumph, Arthur Stillwell saw the railroad he had dreamed of, planned for, and built over the years slip out of his hands. Financial difficulties dogged the KCP&G. These sprang largely from speedy construction and heavy mortgages. In March, 1889, the company went into receivership. It emerged a year later as the Kansas City Southern, which consolidated all of the separate properties, except the Texarkana & Fort Smith, into one great system. Legal technicalities prevented the T&FS from becoming an integral part of the line until 1934.

It was a bitter pill for Mr. Stillwell to swallow. But a humorous newspaper columnist made it worse by writing: "If a man is cross-eyed it is a great detriment; if a man is humpbacked it is an act of God; but if a man wears side whiskers it is his own fault."

A cold fury seized the deposed tycoon. He surveyed his sideburns in a mirror. That hirsute adornment had enabled him to convince a marriage-license clerk that he had reached the legal age of 21 when he was only 18. But now, it seemed, sideburns had gone out of fashion. Well, he wasn't going to be made a laughing stock. Seizing a razor, he shaved off the whiskers, and after that he felt much better.

Then he announced: "It is true I have lost the railroad, the creation of which was the ambition of my life. Though it is gone from me, it is still there, serving the world, and I have ceased to worry about it."

The Kansas City Southern profited handsomely from the Texas oil boom. In 1901, Pat Higgins and Anthony Lucas hit a jackpot in the famous Spindletop gusher that transformed the Beaumont - Port Arthur area into a rich oil and manufacturing center. Later, as new coal fields opened up, the KCS built several branches to handle the additional traffic.

This road has long concentrated on heavy tonnage. For that reason, its early roster included relatively few of the popular America-type locomotives but many Ten-wheelers (4-6-0's), then the dependable mover of goods. With the new century the 2-8-0 type had appeared and the KCS invested deeply in them. For many years the E-3 Class was the backbone of KCS power. It is interesting to note that one of them, Number 510, outlived all the other KCS road engines.

While the line was growing, it suffered from a shortage of motive power. One of Stillwell's friends, George M. Pullman of sleeping-car fame, aided him with equipment and funds. Mr. Blood of the Manchester Locomotive Works let him have some engines, which explains their presence on the early roster. Most of the other locomotives on the Stillwell road were built by Baldwin and Alco. The Grant Works supplied a series of passenger power (See page 74.)

Increased carloadings called for larger engines. In 1912 the Class G 0-6-6-0 compound Mallets appeared and worked the helper districts on mountain grades, while the Class H 4-6-2's wheeled the fast passenger trains. Smaller engines were scrapped. By 1913 a larger type 2-8-0, Class E-4, built by Richmond Locomotive Works for the KCS, ranked among the largest of that type ever known. Their small drivers (57 inches) enabled them to nearly double the timetable ratings and they became the mainstay of freight service. A larger Mallet, 2-8-8-0, appeared during World War I, and another group followed in 1924.

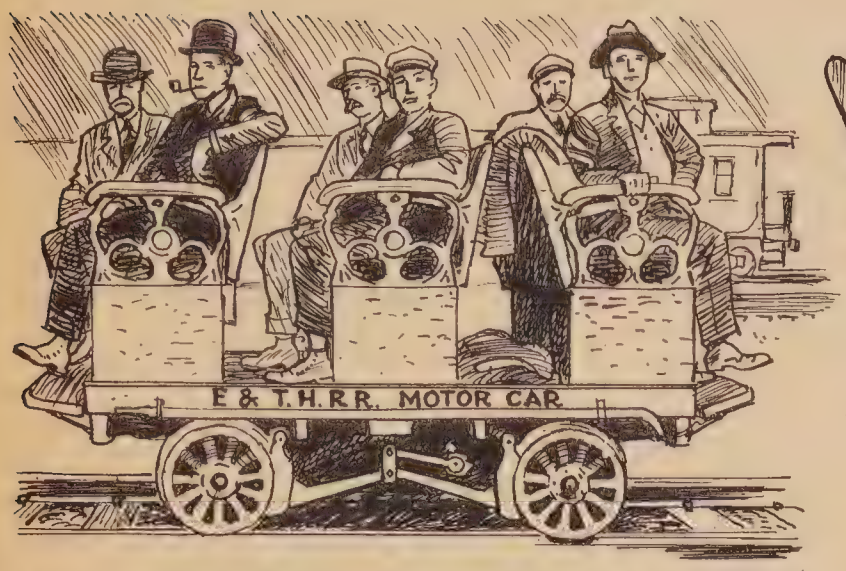
The last new steam power purchased by the Kansas City Southern were ten Lima-built Class J 2-10-4's that boasted 70-inch drivers and a boiler pressure of 300 pounds per square inch. Delivered in 1937, they were regarded as the king of the rails and soon paid for themselves by hauling increased tonnage at stepped-up speeds.

Always a pioneer, the Kansas City Southern began turning to diesel-electrics in 1938. Its first diesel powered the *Flying Crow* and later headed the first run of the *Southern Belle*—one of the very few passenger trains anywhere with feminine names—on its maiden trip from Kansas City to New Orleans over the combined properties of the KCS and the Louisiana & Arkansas. And that began the modernization of the former Stillwell road.

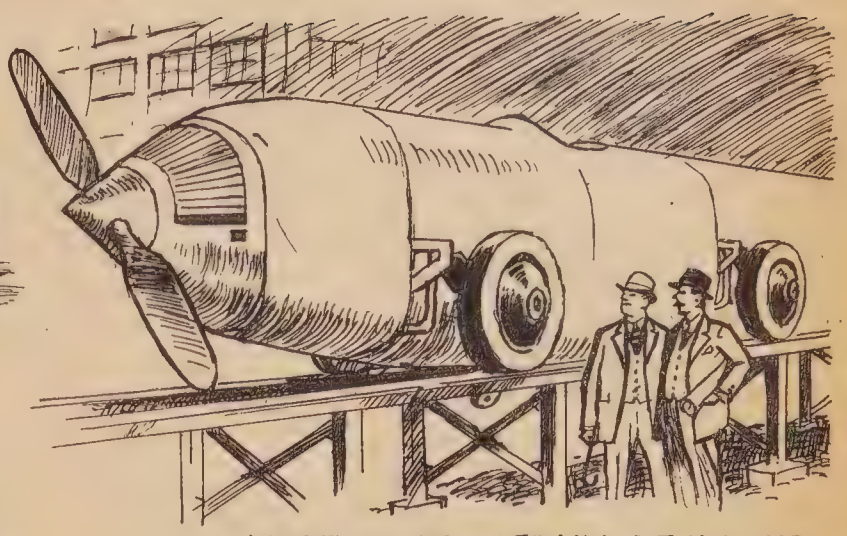
Stillwell himself, who had followed a hunch in asking Philadelphians to finance the first precedessor of the "Route of the *Southern Belle*," was never one to glorify the past or belittle the present. When an old crony shook his head and lamented, "How times have changed!" the great railroad builder snapped back, "Yes, thank God!" ●

Along the Iron Pike

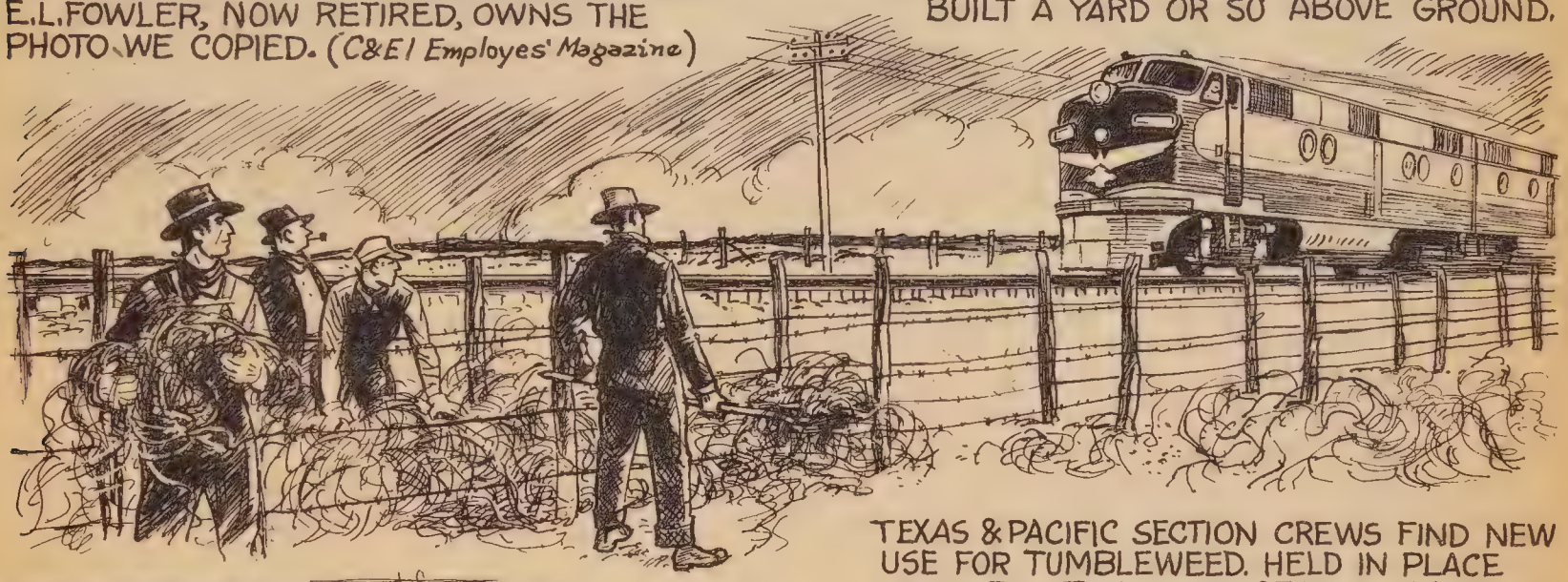
by Joe Easley



TALLY-HO, 1908 VERSION. CHICAGO & EASTERN ILLINOIS OFFICIALS TAKE INVENTORY OF TERRE HAUTE SOUTH YARDS. ONE OF THEM, E.L.FOWLER, NOW RETIRED, OWNS THE PHOTO WE COPIED. (*C&EI Employes' Magazine*)

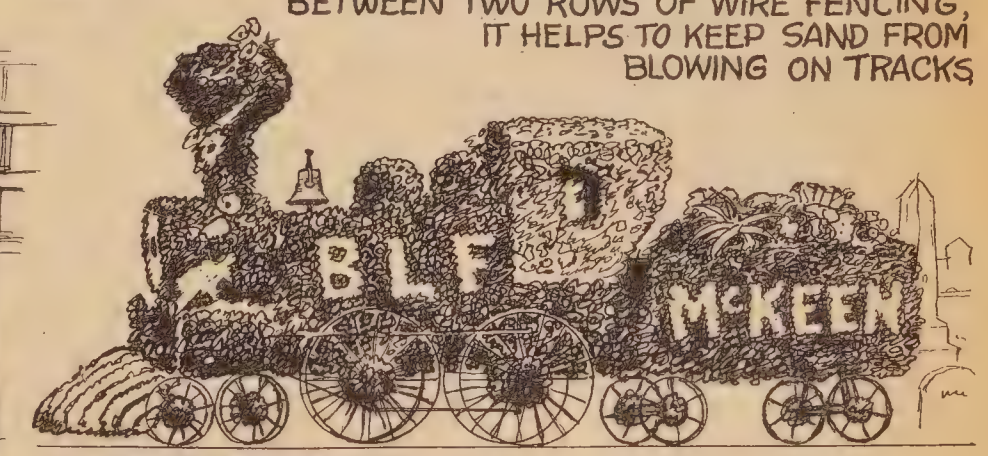


MODERNISTIC TRAIN DESIGNED TO MAKE 120 MILES PER HOUR IS BEING TESTED IN ARGENTINA. RUBBER-TIRED WHEELS WITHOUT FLANGES RUN ON RAILS BUILT A YARD OR SO ABOVE GROUND.



TEXAS & PACIFIC SECTION CREWS FIND NEW USE FOR TUMBLEWEED. HELD IN PLACE BETWEEN TWO ROWS OF WIRE FENCING, IT HELPS TO KEEP SAND FROM BLOWING ON TRACKS

BRONZE PLAQUE, STILL ON WALL OF ATLANTIC CITY UNION STATION AFTER 15 YEARS, HONORS DOG THAT HELPED TO DIRECT TRAFFIC. (*Harrison Stewart, President Hotel, Atlantic City, N.J.*)



FIREMEN'S BROTHERHOOD SET THIS TRIBUTE ON GRAVE OF FIREMAN RILEY McKEEN, TERRE HAUTE, IND., WHOSE SON FRANK BUILT FIRST GASOLINE-POWERED RAIL COACH. ANOTHER SON, BEN, A PENNSY VICE PRESIDENT, BUILT VANDALIA LINE. ("Carload Andy" Ospring, Burbank, Calif.)

INFORMATION

ASK BARBARA: **Railroad questions are answered here every issue by our research expert—as many as space permits. Top priority is given to subjects that seem to be of wide general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.**

1

Question: *I understand the Ford Museum at Dearborn, Mich., has a locomotive, the* Sam Hill, *named after a famous hogger. Who was Hill?*

Answer: He was an engineer on the Michigan Central between the years 1848 and '68, whom Henry Ford remembered from his boyhood. Hill pulled the *Day Express*, the MC's best run, making such speed with his engine that it gave rise to the expression, "going like the Sam Hill."

Originally named the *Satilla*, this locomotive was built in 1860 by Rogers of Paterson, N. J., as a counterpart of the *General* of Civil War fame. The *Satilla* was a 4-4-0 woodburner, originally used in logging operations by the Atlantic & Gulf. Like other engines of that period, she was richly gilded and finished in hardwood. Her four driving wheels were turkey red with yellow-striped spokes.

The locomotive and tender weigh 90,000 pounds, tractive power, 7,453, cylinders 13 by 22 inches, drivers 53 inches, boiler pressure 125 pounds, and weight on drivers 50,000 pounds. The tender carried two cords of wood and enough water to run 30 miles.

Mr. Ford restored her and changed the name to *Sam Hill*. In 1929 she pulled three reconstructed coaches, carrying President Hoover, Thomas A. Edison, Henry Ford, and other guests from Detroit to the Greenfield Village Museum for its dedication. In honor of the occasion, Ford renamed the locomotive *The President*. The train was used for a movie in 1940 when Mickey Rooney played the part of young Tom Edison.

2 *How many American railroads are billion-dollar corporations?*

Seven. The Pennsy, New York Central, Southern Pacific, Union Pacific, Santa Fe, Baltimore & Ohio, and Chesepeake & Ohio each have total assets of more than a billion dollars, C&O being the latest to join the list.

3 *Is there any truth to the rumor of a proposed merger of the Lackawanna, the Erie, and the Delaware & Hudson?*

Yes. The advantages and disadvantages of such a move are being studied by directors of the three roads, but no action has been taken yet. Even if the boards should favor the idea, probably a year or two would be needed to cut the red tape involving stockholders' permission for merger, Federal and state agencies, the courts, and so on.

4 *My wife says Mr. Pullman invented the first sleeping car. I disagree. Who is right?*

You are. George M. Pullman was only five years old in 1836 when the Cumberland Valley line (now part of the Pennsy) operated the first crude sleeping car. In 1843 the Erie followed suit. On December 2, 1856, Theodore T. Woodruff of Watertown, N. Y., patented a car with upper and lower berths. One of these was built the following October at Springfield, Mass.

Not until 1848 did Pullman design his first sleeper. Two were made from remodeled Chicago & Alton coaches. The first *new* Pullman sleeper was built in 1864 and named *The Pioneer*. Too wide for station platforms and too high to run under railroad bridges, *The Pioneer* stood idle until it ran in President Lincoln's funeral train. Platforms and bridges had to be altered in order to accommodate the car's dimensions.

5 *Which is the world's oldest railway bridge in point of continuous service?*

A stone arch structure carrying the Baltimore & Ohio across Gwynn's Falls at Mt. Clare, Baltimore, Md. Opened to traffic in December, 1829, it is still in use.

6 *What are the advantages of a steel-reinforced grain door?*

Such a door could be installed by one man in five minutes and would substantially reduce boxcar damage and load leakage. A new type has been designed by Acme Steel. It is reinforced with horizontal steel beams and vertical steel slat-braces which prevent outward bulges, thus minimizing the possibility of sprung doors on grain-carrying cars. This type does not allow the grain door to come in contact with the regular boxcar door. The steel beams provide a ladder for inspectors and samplers.

BOOTH

Built by Rogers in 1860, this 4-4-0 woodburner, originally the *Satilla*, was brought by Henry Ford for his Dearborn museum.
Henry Ford Museum and Greenfield Village, Dearborn, Mich.

7 *What happens when an ambulance or a fire engine has to use a grade crossing which is blocked by a train?*

If necessary, the engineer will pull ahead or reverse.

8 *What happens to the right-of-way after a railroad has been abandoned?*

If the land is owned by the railroad, it might be seized by creditors or the company might sell it or hold it for some future purpose. But if it was operated under a lease, any disposal of the property would depend on the owner's plans. Where there is no intention to use the right-of-way for any other railroad, the rails, switches, etc., probably would be salvaged.

9 *In train dispatching, what is meant by initials "SD?"*

Stop delayed.

10 *A two-page ad in* Modern Railroads *was headed, "Of course our berm is clean!" What is berm? The ad didn't explain.*

Berm is that part of railroad land in a rural area which lies between the track ballast and the right-of-way fence. Clean berm means it is free of weeds and underbrush.

11 *What is the new pressure-maintaining valve which the Pennsy uses on steep grades?*

It's a dynamic brake which turns a diesel locomotive's electric traction motors into generators and can be compared to a motorist using his car engine in low or second gear as a breaking force on a steep hill.

Several Pennsy officials watched the operation on a 43-mile slope of the Denver & Rio Grande Western. Before its installation, Rio Grande crews had to stop several times on the way down to renew worn brake shoes and cool smoking wheels. After the valve was installed they made no stops.

Impressed by the operation, the Pennsy tested the device on an 11.1-mile hill from Gallitzin to Altoona. A three-unit diesel locomotive with two "A" units was coupled to train FW-8, made up of 92 cars. The engineer made only one brake application all the way down the hill, as compared with 25 to 50 necessitated by the old method of brake grading.

Previously, at the end of the run, it had been routine procedure to take half an hour to knock down the retaining valves, which covered half the train with a blanket of smoke. But with this new method there is no smoke or overheated wheels. Tests on other grades have confirmed the fact that the pressure-maintaining valve is both effective and safe.

12 (a) *What is the total trackage on Class I roads in the United States?* (b) *How many miles of it are required for yard switching operations?*

(a) 391,600. (b) About 60,000

Dave Wilson, Pennington School, Pennington, N. J.

Trains would have to fly to get around these obstacles. (Above) Pennsylvania-Reading Seashore Lines No. 775 passes signal C119 en route from Millville to Camden, N. J. Signal was transplanted when southbound track operation ceased. (Below) Restricted clearance went into effect when *shoo-fly* was laid in emergency at Wellington, New Zealand. Pole was removed before opening new line.

Modern Railroads.

13 *What can you tell me about the tunnel that was to have been built through the Rocky Mountains from Black Hawk, Colo., through to Middle Park?*

This tunnel was started by the Sierra Madre Tunnel Co. on May 27, 1873, to accommodate railway trains and was also planned to be a mining bore. It was to have been 12 miles long and 6,000 feet below the tip of James Peak, but the company went broke and never completed the job. We do not know how much of this tunnel actually was built.

14 *How about a history of the New York, Chicago & St. Louis?*

Glad to oblige. Incorporated in 1881, the NYC&StL (now called the Nickel Plate) was founded by George I. Seney in competition with the Vanderbilt and Gould interests. His ambition was to link two great railroad centers, Chicago and St. Louis. Work progressed so rapidly that the line was known as "the mile a day road," and in less than a year 400 miles of track were in operation, linking Buffalo, Cleveland, and Chicago. But the St. Louis terminal did not come to pass during the founder's lifetime—not until 1922 with the acquisition of the Toledo, St. Louis & Cincinnati, which ran between Toledo, Ohio, and East St. Louis, Ill.

Nicknamed the Clover Leaf, the latter had been built in 1846 as a narrow-gage line. Eventually, through expansion, it became the longest narrow-gage (449.7 miles) road east of the Mississippi, but converted to standard gage before the merger.

The third link in the Nickel Plate chain was the Lake Erie & Western, acquired in 1922. This one, with a terminal at Peoria, Ill., also dated back to 1846, when the line was inaugurated as the Peru & Indianapolis.

15 *Do you know of any case where a man and his son are engineer and conductor, respectively, on the same train?*

Yes. Frank and Bill Blades work on the Pennsy's CN-38, a local freight which hauls scrap iron and coal from Cincinnati's Undercliff Yard to Middletown, Ohio. Frank is the engineer and Bill is the skipper. They've worked as a team for over a year.

16 *What is the diameter of the largest wheels of a standard diesel-electric freight locomotive?*

Forty-two inches. Many locomotives have 36- or 40-inch wheels.

17 *When was the* Pennsylvania Limited *put into operation, and what was her consist at the time of the* 127-*mph. spurt near Ada, Ohio?*

The *Pennsylvania Limited* took to the rails Nov. 19, 1881, as the *New York-Chicago Limited.* Ten years later her name was changed to the one you mention.

The streak of varnish that made the record was not the *Pennsylvania Limited,* but the *Pennsylvania Special,* known today as the *Broadway Limited.* The *Special* went into operation June 15, 1902. The 127-mph. record was made June 12, 1905, when she ran one mile in 28 seconds with a 315,600-pound Atlantic-(4-4-2) type engine, Class E3, built by the Pennsy at Altoona, and four new wooden passenger cars, painted yellow. No American steam power has ever beaten this record. But French electrics beat it.

18 *Does a gas-turbine locomotive have reciprocating parts?*

Yes, if you include gas-turbine accessories such as the internal parts of the governor, and portions of certain types of fuel pumps.

19 *What is operating ratio?*

The percentage which operating expenses represent with relation to operating revenues. The lower the ratio, as a rule, the more satisfactory the results. Since 1920 the highest operating ratio for Class I roads in the U.S.A. as a group was 83.35 percent in 1946. The lowest was 61.62 in 1942.

20 *How much steel rail is laid per mile on a single-track line?*

That depends on the weight of rail used. The average is 183 tons.

21 *Is there any record that mentions the name of the first newlyweds who took a honeymoon by rail?*

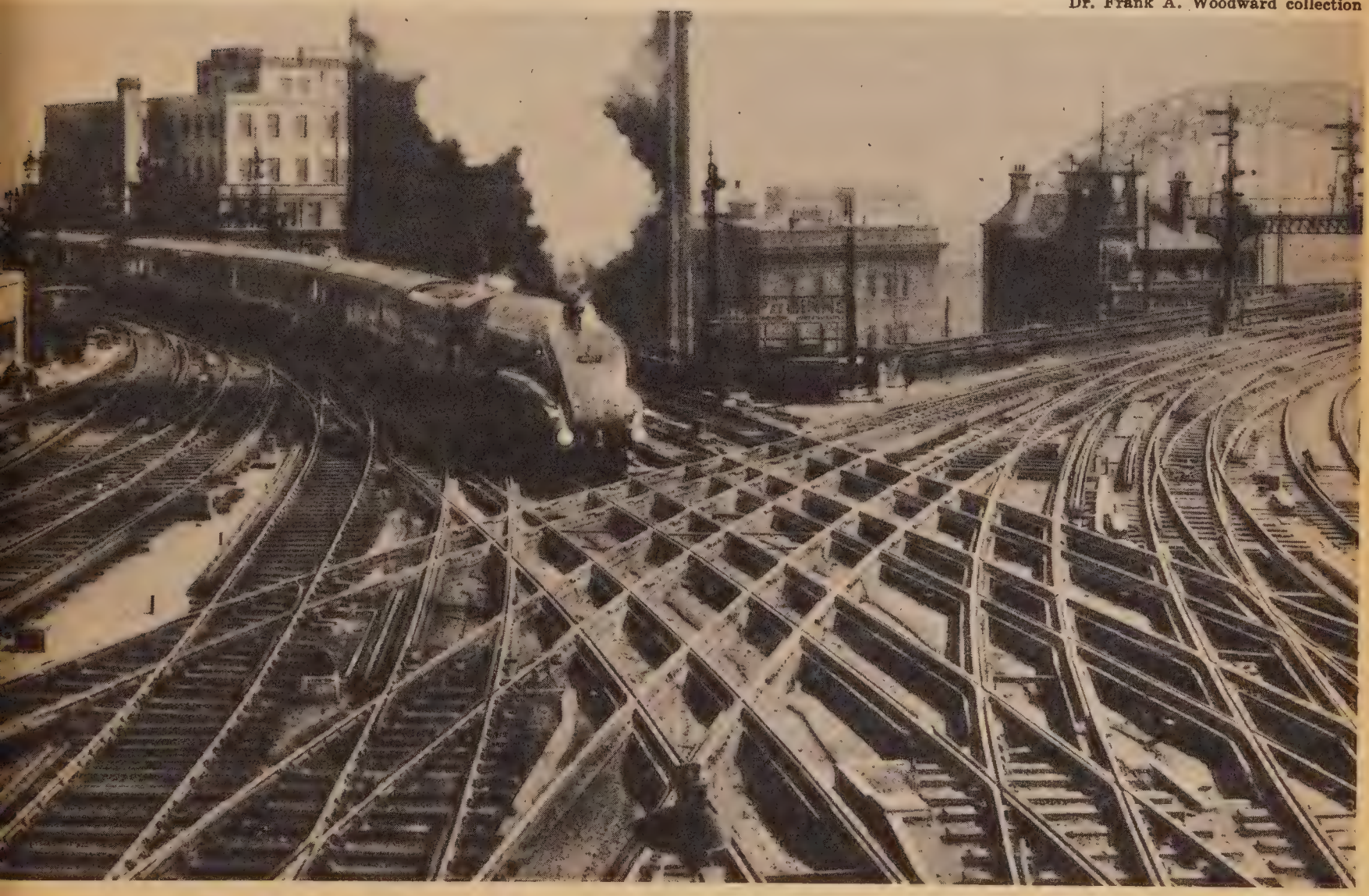
Yes. Mr. and Mrs. Henry L. Pierson of Ramapo, N. Y., married on Christmas day, 1830, had heard about the locomotive *Best Friend of Charleston* and its little train. Right after the wedding they journeyed to Charleston, S. C., by stagecoach and rode that train to the end of the line and back—12 miles in all. About 20 years later, Mr. Pierson, then an Erie Railroad vice president, took his wife for a ride on the first passenger train from New York to Buffalo.

22 *A recent newspaper item reported that Baldwin-Lima-Hamilton had placed a contract for building a mobile unit atomic power plant for locomotives. Is that true?*

No. The contract placed with a nuclear laboratory was merely a renewal for the purpose of completing reports on preliminary research already done. All of which is a long way from actually building an atomic locomotive.

23 *A history of the Shepaug, Litchfield & Northern, please.*

Dr. Frank A. Woodward collection

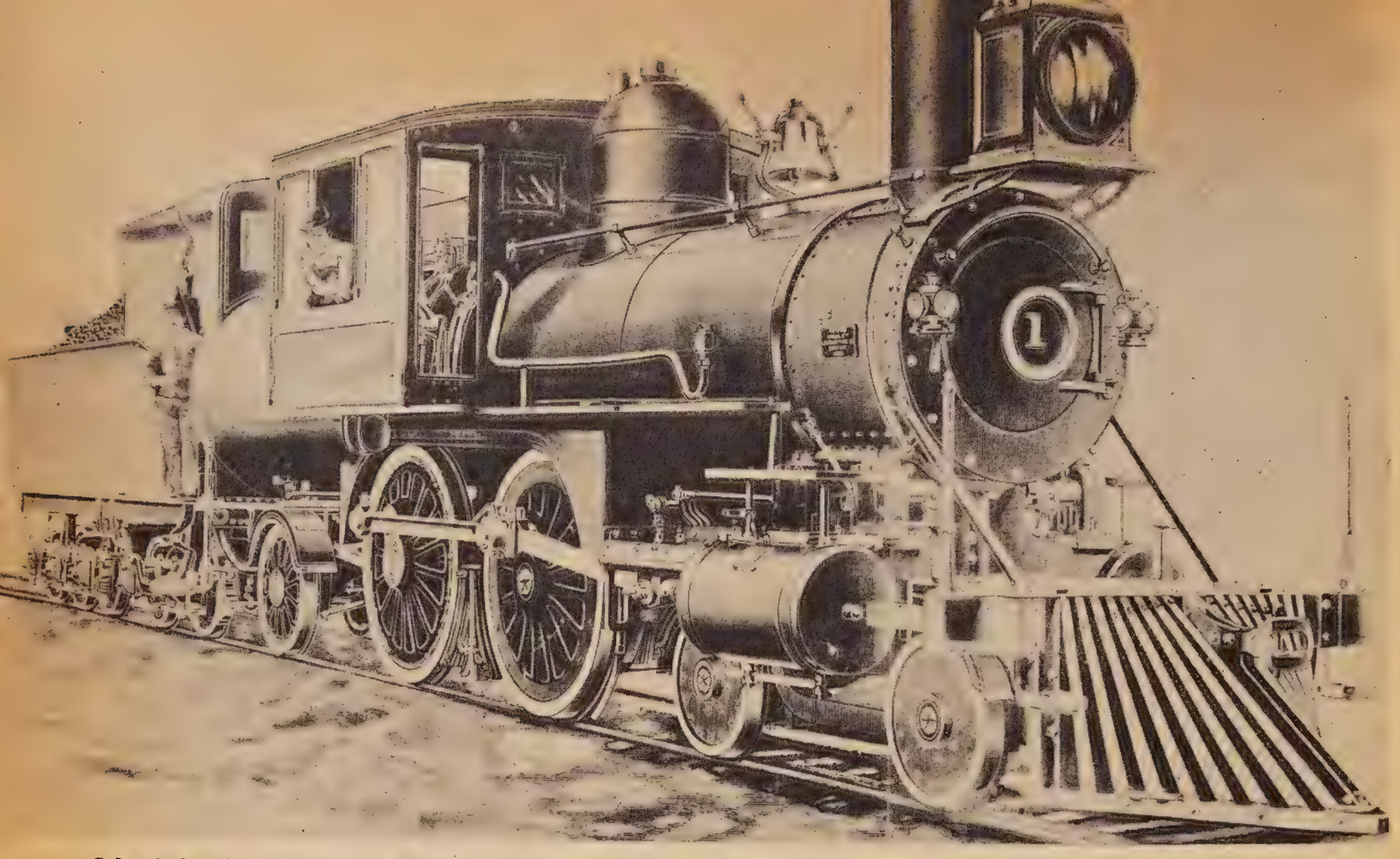


This maze of tracks at the English industrial center at Newcastle-upon-Tyne is descriptively named a diamond railway crossing.

X4019

This mighty symphony of steam, steel, and smoke is a 4000 Class 4-8-8-4 hauling Union Pacific freight up a long grade in Echo Canyon, Utah. Known as "Big Boys," this type is the world's largest steam locomotive and the most powerful of all single-unit engines. No. 4019 in service today between Green River and Cheyenne, Wyo.

W. A. Coons, chief photographer, Union Pacific Railroad



Walter A. Lucas collection

Cab of the *A. C. Darwin* was entered from the pilot. This unique 4-4-2 was built to demonstrate the Strong valve gear.

Norfolk & Western Railway

Many readers collect switch keys, such as this one used by a Norfolk & Western brakeman in the course of his duties.

The line, running between Hawleyville and Litchfield, Conn., was chartered in May, 1868, as the Shepaug Valley RR. It was reorganized in 1873 as the Shepaug, and in 1887 as the Shepaug, Litchfield & Northern. In 1898 it became part of the New Haven, at which time it had 32 miles of line and 3 miles of siding track. Rolling stock consisted of 4 locomotives, 3 coaches, and 46 freight cars.

24 *What is the average number of switches to a mile of track?*

Only the nature and location of a particular track segment can determine the answer. The Pennsylvania, for example, has more than 60,000 switches distributed over some 25,000 miles of first, second, third, fourth, and siding track.

25 *Somewhere I saw a picture of an engine, the cab of which was entered from the pilot. Please explain.*

She was probably the *A. G. Darwin*, No. 1, built by Strong Locomotive Co. about 1889, to demonstrate the George S. Strong valve gear.

Her cylinders were 18x24 inches. The boiler had two fireboxes and the cab was built over the center of the boiler. She had gridiron valves 1½ inches travel, independent steam and exhaust valves, combustion chamber, two eccentrics only, and the reverse was controlled by a radius bar. On a good roadbed she could make up to 86 miles an hour.

Unfortunately, we have no information as to where she is now.

26 *Define subgrade, as applied to railroad track work.*

It refers to earth used to form a grade for the ballast and track.

27 *Before the use of bell-cords, how did a conductor signal his engineer when and where to make an unscheduled stop?*

Usually be climbed the ladder to a car roof, ran forward to within hailing distance, and shouted. Sometimes he used a prearranged signal code, such as holding up a certain number of fingers. At night, or in a heavy storm, or if the car tops were icy, such communication was dangerous, almost impossible.

28 *What is a multi-pressure engine?*

A locomotive that uses two or more

boilers to generate steam at different pressures. Working on the compound principle, steam from the high-pressure boiler is directed into high-pressure cylinders, while low-pressure cylinders receive their supply from a low-pressure boiler. Supplementary low-pressure steam is furnished by the exhaust from the high-pressure cylinders.

29 *I own a 4-wheel railroad bicycle. Can you identify it?*

Your description suggests a Fairbanks velocipede inspection car. This magazine published a picture of such a vehicle (March '41) in an illustrated feature which told the history of section cars from the very beginning.

30 *Is catenary wire more durable than pantograph shoes?*

Yes, particularly when suspended from roadside poles where no stress interferes with flexibility. For instance, Pennsy wires of this type have lasted for 50 years. But if the degree of "softness" is restricted by bridges or tunnels, the same wire may be worn out in less than 20 years. Pantograph shoes are made of soft steel and must be renewed after 6,000 miles of use.

31 (a) *Are any steam locomotives now in production for use in North America?* (b) *Are any being rebuilt?* (c) *Does the Nickel Plate have any steam engines now in service?*

(a) No, and no future production is contemplated. (b) A few. (c) Yes, Berkshire types haul freight on the Buffalo-Chicago main line, which handles 46 percent of the Nickel Plate's gross ton-miles.

32 *What kind of mechanism is an inertia dynamometer?*

A complicated installation for testing standard railroad wheels from 30 to 48 inches in diameter under normal or exaggerated conditions. The world's largest dynamometer is now in operation at U. S. Steel's Applied Research Laboratory, Monroeville, Pa. This one is a completely integrated unit that is being used as a research tool for the development of wheels of improved composition and mechanical design.

33 *Was the Union Pacific the first railroad to build into Idaho?*

Yes and no. The first was the narrow-gage Utah Northern, completed from Ogden, Utah, to Franklin, Idaho, on May 3, 1874, which later became part of the Union Pacific system.

34 *How many miles of electric wiring go into the building of a diesel-electric engine?*

That depends on the horsepower. For 2,000 hp., more than two miles of wiring is required.

35 *Which was the first luxury train on the European continent?*

The *Orient Express*—famed in films and mystery stories—consisting entirely of locomotive, drawing rooms, sleeping cars, and a diner. The International Sleeping Car Co. put it in operation June 5, 1883 between Paris and Vienna.

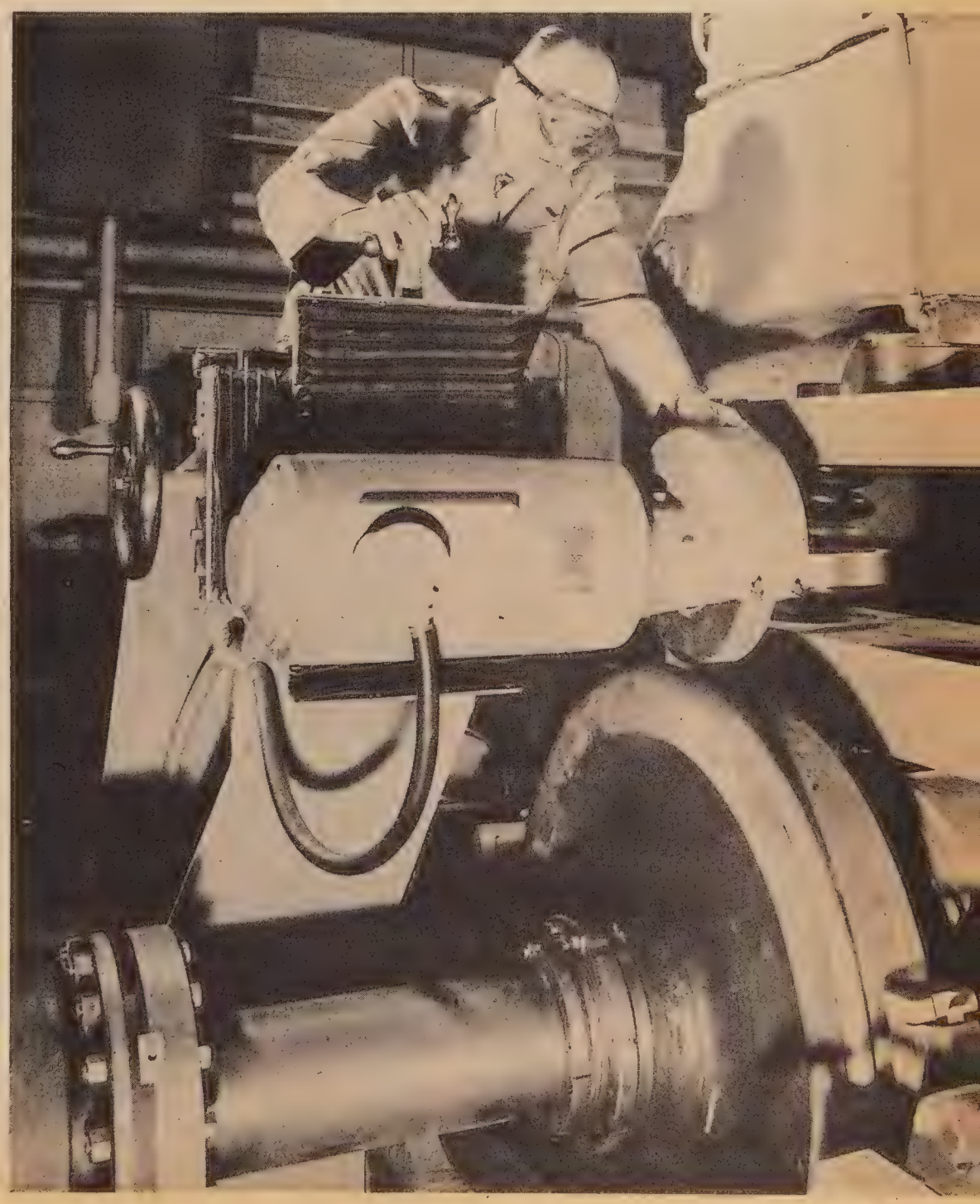
36 *Did steam turbine-electric locomotives ever run on a Western road?*

Yes. Alco-GE built two and operated them experimentally on the Union Pacific, but a succession of mechanical difficulties caused them both to be scrapped after a few years.

37 *When did American railroads start to make agreements for the joint use of trackage?*

The first such agreement we know of was made March 17, 1848, by the New York & New Haven and the New York & Harlem for joint tracks between Williams Bridge and the New York passenger terminal. These roads are now parts of the New Haven and the

The world's largest inertia dynamometer for testing full-scale railroad wheels at U. S. Steel's Applied Research Laboratory, Monroeville, Pa. Here a laboratory technician is shown adjusting the heavy grinder for tread on wheel to be tested.



New York Central respectively. The agreement is still in force.

38 *Do you think the Federal Government ever will own and operate America's common-carrier railroads, as is the case in most foreign countries?*

Not unless our nation should run into a depression worse than the one which began in 1929. The outstanding performance of the railroads under private ownership during World War II is one of many arguments against nationalization.

39 *Suppose the same amount of power that stops a train going 60 miles an hour were used to lift that train vertically above the earth, how high would it be raised?*

About 120 feet.

40 *I'm 18 years old and want to learn telegraphy. If I do so, could I be reasonably sure of having a good job for the rest of my days?*

We asked a veteran brass pounder, Jesse M. Grigg of Chicago, who sent this reply: "There is little chance that the Morse telegraph will endure as long as a youth now 18 may expect to be employed. In some way stations Morse hangs on precariously for message work, because many Morse operators remain, and a Morse circuit saves the day when the dispatching phone fails. But it will go even from those stations when Morse men themselves pass out.

"Nevertheless, many fellows are studying telegraphy and station work. Having started, they will find other railroad jobs when telegraphy is gone. There are a host of openings for which station and train-order work is a good preparation. The pay is rather high. I know a station agent who makes $82.80 for a 40-hour week, with little work, in a small town where living expenses are low."

RUNNING EXTRA

Do not send us stamped envelopes, since we can't reply by mail. Ours is a fascinating job, digging up answers to questions, especially tough ones, and printing as many of them as space permits. But the large number of inquiries received prevents us from engaging in personal correspondence.

And, please, stick to railroad topics of wide general interest. Doing so helps us to keep this section bright and lively.

"WAS the body of Lincoln's assassin, John Wilkes Booth, ever exhibited in a private railroad car?" asks Charlie Campbell, Box 301, Sylva, N. C., who is touring the South with the body of Marie O'Day, a murdered night-club entertainer, and making money out of this gruesome display.

Booth was buried secretly, but his body was disinterred later and taken by train to Baltimore, Md., where the coffin was opened for identification in a private house. Maybe some reader can tell us whether or not it was exhibited on board the train.

P. H. WHITNEY, General Electric Co., Erie, Pa., comments that our *Information Booth* covers a broad field that interests readers.

"However," he adds, "your first item in Dec. '56 implies that the lowest-priced diesel-electric switcher locomotive costs $105,000. GE has built and put into service over 250 so-called 70-tonners which sell for $89,500 apiece. This type might well be called the standard for short-line railroads."

OUR West Virginia logging road list has been brought up to date by John P. Killoran, 1438 6th Ave., Huntington, W. Va. He says the days of geared engines in his state are numbered. Readers who want to visit any of those roads had better do so before they are dieselized or scrapped.

Meadow River Railroad is replacing all but one of its geared engines with a 44-ton GE diesel locomotive. The smallest Shay, No. 1, is being kept for use as a yard goat. The McGiffert steam log loader, which used to handle the company's rail logging, is now stored in the Rainelle yard.

Mann's Creek Railroad, Clifton, W. Va., has been abandoned and scrapped since our last list was published.

"WHO CAN give the number of the Chesapeake & Ohio Alleghany-type en-

The operator of a Jackson Multiple Tamper, about to realign C&O track, waits for gandy dancers to finish checking rails and ties before setting machine in motion.

Thomas Hollyman, Chesapeake & Ohio

These multiple tie-tampers are working on C&O main line out of Detroit. Each machine, built by Railway Maintenance Corp., has 16 vibrating tampers which force ballast securely under the ties. The tampers are activated by Chicago Pneumatic or Ingersoll-Rand compressors powered by 6-71 Detroit Diesel engines. Two can service approximately a mile of track a day.

gine that blew up at Hinton, W. Va., about three years ago?" asks Lawrence Harrus, 214 2nd St., Highlawn Addition, Oak Hill, W. Va.

COMMENTING on items 28 and 44, Dec. issue, Theodore Vaill, publisher of *The Winsted Evening Citizen*, writes: "Winsted, Conn., still has passenger service—one Budd car in from the south at 6:45 a.m. and out again at 7 a.m. with a connection at Bridgeport for New York; also an evening train at 7:26, which leaves at 7:50 for the south.

"Winsted was without railroad service from Aug. 19 to Nov. 11, 1955, due to a flood. We had no freight service for 83 days and no passenger service for 253 days. Unlike Dirrandbandi, Australia, (mentioned in item 4) Winsted was not marooned. We had service over some highways, although many bridges were out."

"WHO knows about a steam locomotive bell, possibly of 1886 vintage, with the following markings: 'C. C. Bell & Co., Hillsboro, Ohio?'" asks E. F. Stoddard, 35 Ringgold St., Springfield, Mass.

JOHNSON BAR: Additional data on this subject (see Dec. '56 issue) is furnished by Jack R. Oldham, 651 Lincoln Blvd., Bedford, Ohio, formerly with the 740th Railway Battalion, U. S. Army. He says the Army locomotives built during World War II had Johnson bars up until the last days of production, when a few were brought out with screw reverses. On these, straight air brakes replaced the steam brakes found on earlier models.

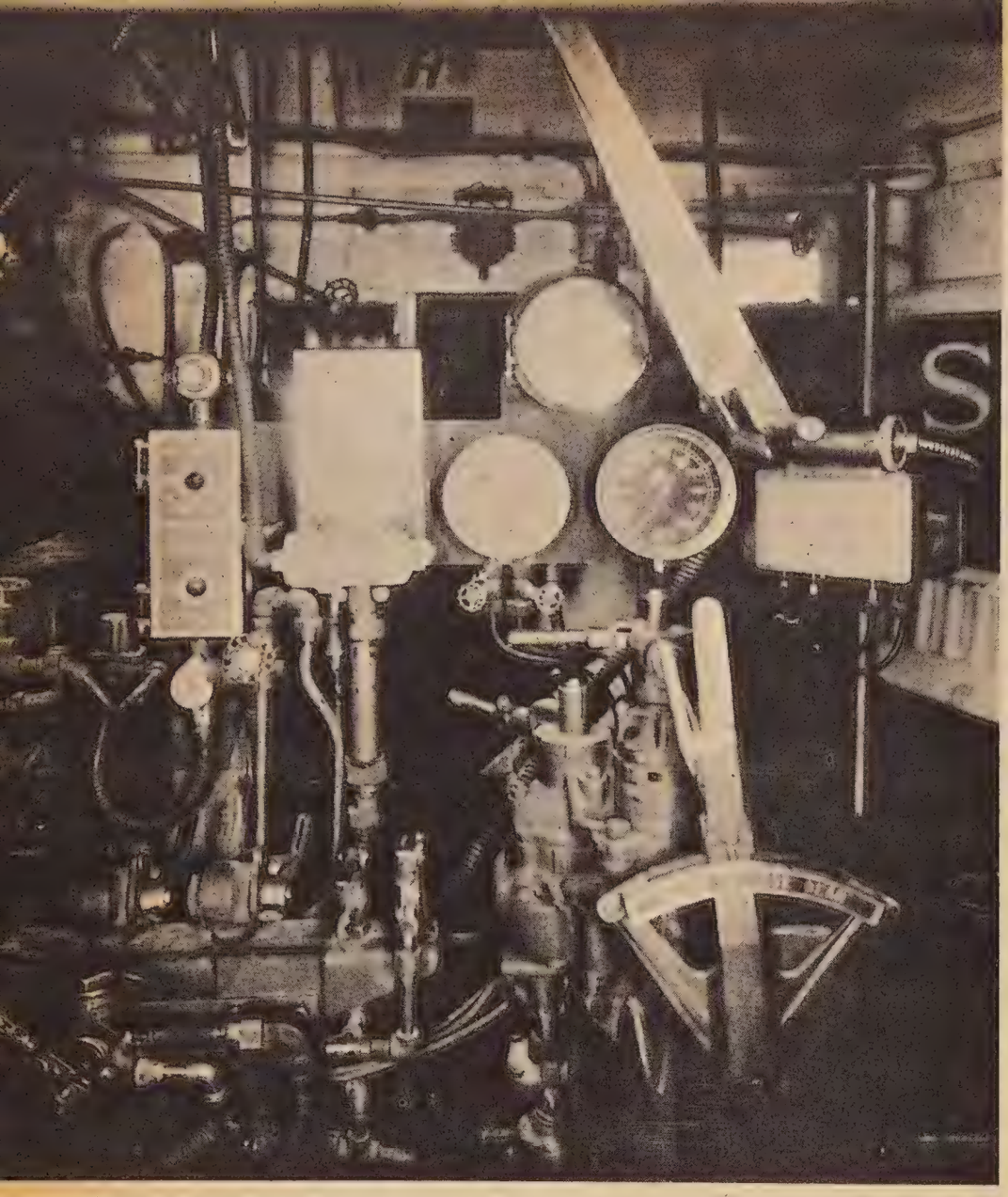
CLEM N. BRUKNER, Box 430, Troy, O., wants specifications and builder's name of some Grand Trunk 4-6-0's known as the "Ajax" type. He also wants details on the alleged financial irregularities of former President Hayes of that road, who went down on the *Titanic*.

INFORMATION is desired by A. Mansfield, 1157 Martin St., White Rock, B. C., Canada, on the extensive branch lines that the Great Northern once had in British Columbia, tapping the mining region, until the Canadian Pacific's Kettle Valley line cut them off. We queried a GN official, who said: "The history of our B. C. branch lines is complicated, involving several predecessor companies, and to the best of my knowledge no writer has ever undertaken to fit the pieces together."

OTTO A. WEISS, 32-52 34th St., Long Island City, N. Y., asks: "Which roads bought rolling stock from the abandoned New York, Westchester & Boston? Is any of this equipment still in use?"

"WHAT is the approximate cost of stopping a full-tonnage diesel-power freight train, running between 30 and 60 mph., and returning to the same speed?" asks Peter Josserand, Western Pacific train dispatcher and *Railroad Magazine* author, 233 41st St., Sacramento, Calif.

We sent the question to the Associa-



Rare interior shot of a cab-in-fronter. You can see the reverse bar at lower right.
Southern Pacific Railroad

tion of American Railroads and, according to R. G. May, vice president, Operations & Maintenance Dept., "so many factors must be considered that it's hard to venture even an approximate answer."

INFORMATION on the famous railroad pontoon bridge at Prairie du Chien, Wis., is wanted by Wm. C. Rebmann, 3115 Emmaus Ave., Zion, Ill.

S. A. SHULER, 25 Romeyn Ave., Amsterdam, N. Y., is interested in the Rutland's 4-4-0 inspection engine, *Ne-Ha-Se-Ne*. (Item 18, Oct. '56.) He has a picture of her taken at the Schnectady Locomotive Works when she was outshopped. It shows the words "St. Lawrence & Adirondack Ry." painted on the side in large letters.

New York Central used several official observation engines during the 1890's, which Mr. Shuler lists as: The *Mohawk*, No. 29 (4-2-0), The *Hudson*, The *Chicago*, No. 24 (4-4-0) and The *Berkshire*. The *Mohawk* and *Ne-Ha-Se-Ne* were similar in design.

"YOU are right in stating (item 40, Dec. '56) that Garratt-type locomotives are not used in North America," writes S. Lancaster, 7 Waterhouse St., Cambridge, Mass., "but it is mainly for the reason that you give as a secondary explanation—namely, the wheel slip. This type of locomotive is used in regions where train tonnages, by our standards, are low. The Garratt just wouldn't work under our conditions."

He adds, "I've been reading your magazine since October, 1918, when the gift of a copy to a certain mess sergeant in the American Army in France during World War I bought me a meal which otherwise I should have missed."

W. S. WICKER, 128 Terrace Dr., N.E., Atlanta, Ga., takes exception to J. Woltman's answer (Oct. '56, page 48) to a question regarding the initials CA&S seen on a boxcar passing through Mojave, Calif. "In view of the car's location," says Mr. Wicker, "they probably stand for California, Arizona & Santa Fe rather than Chicago, Attica & Southern."

DOES anyone know what happened to the Miniature Locomotive Works of New York City? Edgar C. Bruton, 420 W. Salisbury St., Asheboro, N. C., wants a custom-built, park-size, steam engine. He had one about ten years ago, built by that company.

INTERESTING sidelights on the Long Beach Railroad (item 6, Dec.) come from John H. Brinckmann, 17 Runyan Ave., Edison, N. J. He says it was operated under contract by the Tuckerton RR., summer service being augmented by the Pennsy. After the foreclosure in 1893 the northern portion to Barnegat City was known as the Barnegat Railroad, and the Manahawkin-Beach Haven as the Philadelphia & Beach Haven.

There is nothing to indicate that operations ceased immediately after the disastrous fire in 1895 when engine No. 1, the *Harvey Cedars*, was damaged. She was still running, with link-and-pin coupling, in 1908 when the

Alfred H. Feldmann, 1095 Lenox Ave., Detroit, Mich.

Three-foot gage two-way stub switch on old East Broadtop RR. at Orbisonia, Pa., which was photographed Oct. 1955.

H. L. Kelso, 6602 6th Ave., Los Angeles, Calif.

A mighty cab-in-front engine gets a ride on the turntable at Espee's Taylor roundhouse in Los Angeles before the day's work.

Board ot Railroad Commissioners declared that the line needed immediate repairs to continue in operation.

The lease was cancelled when the M&LBT could not meet costs. The owning PRR then contracted with the Tuckerton to operate the lines, which survived through many deficit-ridden years until abandonment of the Barnegat portion in 1923 and destruction of the long trestle in 1935.

Mr. Brinckmann plans to write a book on this line in collaboration with William S. Young.

OUR ANSWER to item 14, (Dec. '56), seems to bother Harry L. Gangwer, 21 Eurana Ave., Weatherly, Pa., who says that in 1836 the Beaver Meadows RR. was an independent company, built by Asa Packer and operating from Beaver Meadows to Weatherly. It was eventually extended west to Penn Haven Junction. At that time Mr. Gangwer's grandfather was a lock tender at Drake's Creek above Penn Haven; he later became an engineer on the Lehigh Valley, which took over the BM.

STUB SWITCHES, as commented upon by E. T. Nash inaccurately in Dec. '56, drew these facts from Dr. George T. F. Rahilly, 100 S.E. 16th Ave., Ft. Lauderdale, Fla.:

"You can find them on the narrow-gage White Pass & Yukon, which runs between Skagway, Alaska, and White Horse, Yukon Terr., and in the narrow-gage Duranto, Colo., yards of the Denver & Rio Grande Western."

TENNESSEE PASS in Colorado, on the Denver & Rio Grande Western, the highest operating railroad tunnel in America, is not quite as high as Carleton Tunnel, about 15 miles southeast of it, according to Kelly Choda, 732 Ursula St., Aurora, Colo., author of a new book, *Thirty Pound Rails.*

Carleton Tunnel is at an elevation of 11,528 feet at its east portal and is 9,394 feet long. Privately owned in the 1890's, it was to have been leased to the Colorado Midland, but in 1922 was deeded to the state's Highway Department for use as a toll tunnel for automobiles. It is now closed to traffic.

"A few miles east," Mr. Choda goes on, "is the old Fremont Pass of the Denver & Rio Grande Western, where trains still make the pass at 11,318 feet above sea level but do not cross it. The line running up from Leadville serves the Climax molybdenum mine there.

"Marshall Pass, also in Colorado, is the locale for a famous legend of a phantom locomotive."

CAB-AHEADS: Edward F. De Vito, Box 11, Warehouse Point, Conn., refers to item 9, Dec. '56, which he feels was incomplete. He points out that cab-in-fronters were also in 2-6-6-2 and 4-6-6-2 types, both built by Baldwin in 1911.

Cab-ahead No. 4294, the last steamer purchased by the Espee, is now on permanent exhibition at the Sacramento passenger terminal, as well as the *C. P. Huntington,* which is the company's famous One-spot.

As we go to press, the Espee still has 52 cab-aheads, assigned to various divisions. Chiefly, they are operating in the Sacramento and Roseville areas and down the Sacramento Valley to Oakland. Several are assigned to the Coast Division out of San Francisco.

However, this type is no longer used in the High Sierras or Cascade Mountains. The company anticipates that some, if not all, of the cab-in-fronters will continue operating until the road is completely dieselized, possibly before the end of next year.

Guests and officials of the Chicago, South Shore & South Bend, including the author, get off special inaugural train to inspect eastern end of new route between Hammond and Gary. Note section car on adjacent track, and old route at the right.

THE MODERNIZED SOUTH SHORE LINE

New Elevated Cutoff, Nearly Six Miles of High-Speed Trackage, Bypasses East Chicago Street Traffic, Saving Time and Money

by Steve Maguire

SCENE: the ticket office of the Chicago, South Shore & South Bend Railroad at Hegewisch, Illinois. An elderly gentleman puffing a cigar walked into the station and laid a few shiny coins on the counter, saying, "One way to Calumet."

The ticket agent smiled politely. "I am sorry, sir, but we no longer go to Calumet."

"Young man," drawled the customer, taking the cigar out of his mouth, "I've been riding your trains for twenty years and I know where they stop. Now give me a ticket to Calumet!"

After explaining, the agent finally convinced the old boy that the new route of the South Shore Line bypassed Calumet. The passenger grunted and settled for a ticket to Gary, and probably walked back.

A glance at the map shows you what had happened. The company had shifted its route so as to avoid the increasingly heavy street traffic in East Chicago—and Calumet was located on the original right-of-way, which is now abandoned. This new cutoff, nearly six miles long, boasts some of the finest high-speed trackage in America and was obtained by the railroad at relatively low cost, for reasons which you will learn if you keep on reading.

Yes, the South Shore has come a long way from its early days as "just another interurban trolley line." Its present status is a direct result of blueprinting for the future that the late Samuel Insull started about thirty years ago when he took over the line. Not only did the South Shore weather the depression that burst upon the nation with fury in 1929—a depression that mowed down many other interurban lines—but it actually emerged as one of the leading high-speed passenger carriers in the Chicago area, besides being a fast freight and industrial road of no mean stature.

The Toll Road cutoff, as the rerouting is called, is only part of the modernization that the South Shore has attained since—and despite—the lean years of depression. This man-sized railroad has risen above the rank of interurbans, has altered its route to provide a track substantially free from the usual problems of street-running, and has encouraged freight traffic on a scale unknown to its interurban contemporaries of the lusty '20's.

Thus it has survived and, what is more, has become an important and profitable property from both the passenger and the freight view-

points. Few electric roads, indeed, can claim such a distinction.

Much credit for this distinction must go to Mr. Insull, the old traction tycoon who was also instrumental in upgrading the other two remaining Chicago interurban lines, the North Shore and the Aurora & Elgin. Insull purchased the North Shore in 1915 when it was sunk in a financial morass. He revitalized it, gained an entry for the line from its old Evanston terminal into the Chicago Loop, and in 1923 built the swift Skokie Valley route which put the company solidly on its feet.

But that wasn't all. For the Aurora & Elgin he ordered new equipment, improved the roadbed, and waged an aggressive advertising campaign that brought more passengers to its cars. Like the South Shore Line, both the North Shore and the A&E are still operating, while almost all other interurbans have long since gone.

Old Sam's Midas-like touch came to the unhappy South Shore in 1925, when it was broke and up for sale at a foreclosure. Outbidding the junk dealers, he acquired control. The line was then called the Chicago, Lake Short & South Bend and it was operating from South Bend, Indiana, to 63rd Street at Kensington, Illinois, where it transferred its passengers to the Illinois Central.

Instead of throwing up his hands at the white elephant he had adopted, Insull shrewdly reorganized it as the CSS&SB we know today, and as soon as the Illinois Central electrified its lines from Kensington to downtown Chicago he bought trackage rights for the South Shore over the IC between those two points.

This he followed up by getting new passenger cars and electric locomotives and pouring money into the right-of-way, into new bridges, new rails, overpasses, and new and longer passing sidetracks. He placed his son, Samuel Insull, Jr., in charge of the renovated line, which he regarded as his pet project, and the young fellow ran it effectively for years. Even today, although Junior is now in the insurance business in Chicago, he retains a keen interest in the line and is a welcome guest

Samuel Insull, Sr., planned the detour 30 years ago and bought the land for it.

Stephen D. Maguire, 802 10th Ave., Belmar, N. J.

Two of the machines used in track relocation project. (Above) This one spread stone ballast six inches deep on Columbia Ave. bridge. (Below) Ballast sweeper.

at its social functions. South Shore men have not forgotten that the Insulls preserved their railroad.

One of the first things that the old utilities magnate did after he got hold of the South Shore was to buy a six-mile strip of land from Gary through an undeveloped area in East Chicago to Hammond, Indiana. This nest egg was to be an alternative to street-running along Chicago Avenue in East Chicago, where several railroad grade crossings delayed South Shore operation.

Insull's bright idea to relocate the tortuous track was shelved by the depression of '29. The company retained title to the proposed right-of-way, and several times thereafter it tried to get permission to relocate the tracks but it refused to meet the unreasonable demands that city officials made in return for such permission.

At length, in 1952, a 16-hour count of vehicles on congested Chicago Avenue showed that an average of one vehicle passed the checking point every four seconds. Armed with this data, the company applied for the right to go ahead with the relocation regardless of the arbitrary attitude of some city officials. The company also began buying as much adjoining land as it could get for an industrial area to be served by the road. In all, it has added 300 acres to its holdings since then.

By 1953, so great was the public pressure upon municipal officials on behalf of the South Shore's relocation project that they no longer ob-

Central Electric Railfans Association

A fantrip on the South Shore Line on 1941. CERA extra meets a regular train, No. 14, at Miller siding in Gary, Indiana.

Track relocation job. Men work on wires just cut off from the old route, on former Indiana Railroad line car 1100.

Stephen D. Maguire

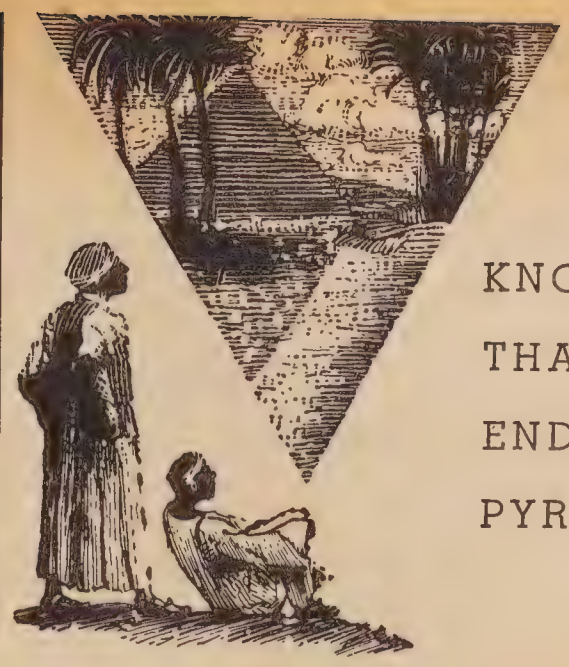
jected. Everyone agreed that the traffic slowdowns on Chicago Avenue were fast becoming intolerable for the interurban trains and the highway vehicles as well.

Jay Samuel Hartt was then—and still is—in control of the CSS&SB, having taken over as receiver when Samuel Insull lost out, and later being elected president. He has been carrying on the South Shore's progressive policies. In 1953, under his guidance, the company made an aerial survey of the old Insull-acquired land, with a view to using it to bypass Chicago Avenue traffic.

At about the same time the Northern Indiana Toll Road was projecting its automobile highway across the state and as it neared Illinois it encountered some tough problems in the busy Calumet industrial area. The Toll Road authorities then tried other routes, but found them too expensive. Then they came upon the South Shore's right-of-way tract. This, they decided, was the best potential site for the new superhighway to Chicago to be found in the area and they began dickering with the railroad for permission to use the real estate for that purpose.

The South Shore had already begun surveys for nearly six miles of track location at grade, at its own expense, but after six weeks of negotiations it came to terms with the Northern Indiana Toll Road authorities. These terms proved to be a windfall. In consideration of 110 acres of railroad land deeded to the Toll Road setup, for a motor route paralleling the new CSH&SB line between Gary and Hammond, the Toll Road agreed to build the South Shore a new, modern, elevated right-of-way over five miles of the land originally bought by Sam Insull. It also pledged itself to construct all necessary bridges, including a 1900-foot span across the Grand Calumet River, and two elevated railroad crossings.

The completed route has twelve bridges—total length, 4180 feet—along its elevated structure. The Toll Road also paid $850,000 in cash for the land conveyed to it by the rail-



KNOWLEDGE THAT HAS ENDURED WITH THE PYRAMIDS

A SECRET METHOD FOR THE MASTERY OF LIFE

WHENCE came the knowledge that built the Pyramids and the mighty Temples of the Pharaohs? Civilization began in the Nile Valley centuries ago. Where did its first builders acquire their astounding wisdom that started man on his upward climb? Beginning with naught they overcame nature's forces and gave the world its first sciences and arts. Did their knowledge come from a race now submerged beneath the sea, or were they touched with Infinite inspiration? From what concealed source came the wisdom that produced such characters as Amenhotep IV, Leonardo da Vinci, Isaac Newton, and a host of others?

Today it is known that they discovered and learned to interpret certain *Secret Methods* for the development of their inner power of mind. They learned to command the inner forces within their own beings, and to master life. This secret art of living has been preserved and handed down throughout the ages. Today it is extended to those who dare to use its profound principles to meet and solve the problems of life in these complex times.

This Sealed Book — FREE

Has life brought you that personal satisfaction, the sense of achievement and happiness that you desire? If not, it is your duty to yourself to learn about this rational method of applying natural laws for the mastery of life. To the thoughtful person it is obvious that everyone cannot be entrusted with an intimate knowledge of the mysteries of life, for everyone is not capable of properly using it. But if you are one of those possessed of a true desire to forge ahead and wish to make use of the subtle influences of life, the Rosicrucians (not a religious organization) will send you a Sealed Book of explanation without obligation. This Sealed Book tells how you, in the privacy of your own home, without interference with your personal affairs or manner of living, may receive these secret teachings. Not weird or strange practices, but a rational application of the basic laws of life. Use the coupon, and obtain your complimentary copy.

The ROSICRUCIANS

SAN JOSE (AMORC) CALIFORNIA

SCRIBE: X.M.A.
The Rosicrucians (AMORC)
San Jose, California
Please send free copy of Sealed Book, which I shall read as directed.

NAME.....

ADDRESS.....

CITY.....

Use this coupon for **FREE** *copy of book*

AMENHOTEP IV
FOUNDER OF EGYPT'S MYSTERY SCHOOLS

Increasing traffic jams on East Chicago streets, with an average of one vehicle every six seconds, night and day, made the rerouting of the CSS&SB imperative.

Number 802, originally built for Russia, is now on the South Shore Line roster.
Stephen D. Maguire

road. As a result of all this, the South Shore had to spend only $2,500,000 on its share of the project.

The elevated tracks built by the Toll Road eliminate 15 separate railroad grade crossings, with a total of 27 railroad tracks, and 22 street crossings, including six traffic lights on Chicago Avenue that the South Shore previously had to obey.

Opening of the cutoff last September 16 also abolished four regularly scheduled stops in East Chicago. A new station, the only one on the new line, is now under construction, with an esculator to carry riders to the overhead tracks. The South Shore's parking lot beside the depot is being enlarged to hold 600 automobiles. Thus passenger facilities on the cutoff are far superior to the old street-loading in dense traffic and the crowded stations with no parking space provided for motorists.

The CSS&SB was one of the first roads to use continuous welded rail, laying two miles of it on Chicago Avenue in 1937. *All* rail on the cutoff is that type. Overhead power is of the catenary type, supported by rectangular frame structures. Insulators were installed by rail-laying gangs with a railbus, originally used by the old Arlington & Fairfax (Va.) interurban line and purchased from the Arcade & Attica. A hoist installed on its roof facilitated this job.

Line crews strung the wire, attaching it to the end of existing steel wire and, with a work-train consisting of ex-Indiana Railroad line car 1100 and a wire car, they fed the wire along from the supply reel as the work-train moved ahead.

All South Shore trains now use the cutoff, with a saving of ten minutes on the passenger schedule and from 15 to 20 minutes on freight. Even more important, the on-time performance of passenger trains, which the old route had subjected to many delays, has been raised from 92 to 98 percent. This means a lot when you consider that the Chicago, South Shore & South Bend runs on a very tight schedule during rush hours.

Over the past ten years, in an effort to alleviate car shortage, 31 passenger cars have been lengthened by the insertion of a new section, six windows long, in their center. This added 24 seats.

The new cutoff, that cost the CSS &SB less than half of what it would have had to spend without the Toll Road deal, is the latest step in the modernization program that has brought prestige and prosperity to the company.

It is unlikely that the Toll Road, which was officially opened last November 15, will cut into South Shore traffic to any great extent, although the new fast highway does parallel the shining rails for part of the distance. Railroad men figure that whatever minor losses may occur in their passenger business will be more than offset by the operational improvements, the time-saving, and the economies resulting from the cutoff. With good reason, they are facing a bright future. ●

BOOKS of the RAILS

THE RAILROAD STATION, by Carroll L. V. Meeks, Yale University Press, New Haven, Conn., 203 pages, $7.50.

This impressively styled book is devoted to the architecture of railroad passenger stations over the past century and a half, from the early transitional buildings of the stage-coach to the great urban terminals of today. The author shows how the development of stations paralleled the growth of locomotive transportation.

One third of the book comprises beautiful pictures of world-famous terminals, old and new, in America and abroad.

REDWOOD RAILWAYS, by Gilbert H. Kneiss, Howell-North, Berkeley, Calif., 165 pages, $4.75. Foreword by Lucius Beebe.

The short lines that operated in California during the last century have much appeal for railfans, and Gilbert Kneiss has captured the enchantment of those little roads that grew into the Northwestern Pacific. The book is enriched with photographs and maps.

Mr. Kneiss is assistant to WP's president, in charge of public relations. His stories have appeared from time to time in *Railroad Magazine*.

THIRTY POUND RAILS, by Kelly Choda, The Filter Press, Aurora, Colo., 46 pages (soft cover) $1. Illustrated.

An interesting history of travel in the Rockies from pack-train days to the recent passing of the "baby" railroads. Today only a little over 300 miles of light iron on the Denver & Rio Grand Western remains to show the oldtime glamor. There, over steep grades and narrow gorges, stubborn little locos are still hauling oil and minerals. Mr. Choda points out an anachronism: uranium, our newest industry, is being served by our oldest rails.

CHESSIE'S ROAD, by Charles W. Turner, Garrett & Massie, Inc., Richmond, Va., 286 pages, $4.90.

From its inception in 1836 as the Louisa Railroad, the Chesapeake & Ohio was a road of destiny.

During the Civil War it became the Virginia Central and effectively served the Confederate cause. It survived Appomattox with a mere hundred dollars in gold and miles of rusted rails, but eventually grew into a mighty system. Under the presidency of Collis P. Huntington, the C&O forged a lucrative link with the coal business and expanded its mileage until it reached from the Virginia Capes to Chicago.

Chessie's Road is a fast-moving history of a great system and some of the people who made it—a generous work with fine illustrations, maps, and charts.

A BRIEF HISTORY OF THE MODESTO & EMPIRE TRACTION CO., by Al Rose, Western Railroader, Box 668, San Mateo, Calif., 30 pages, (soft cover) $1.

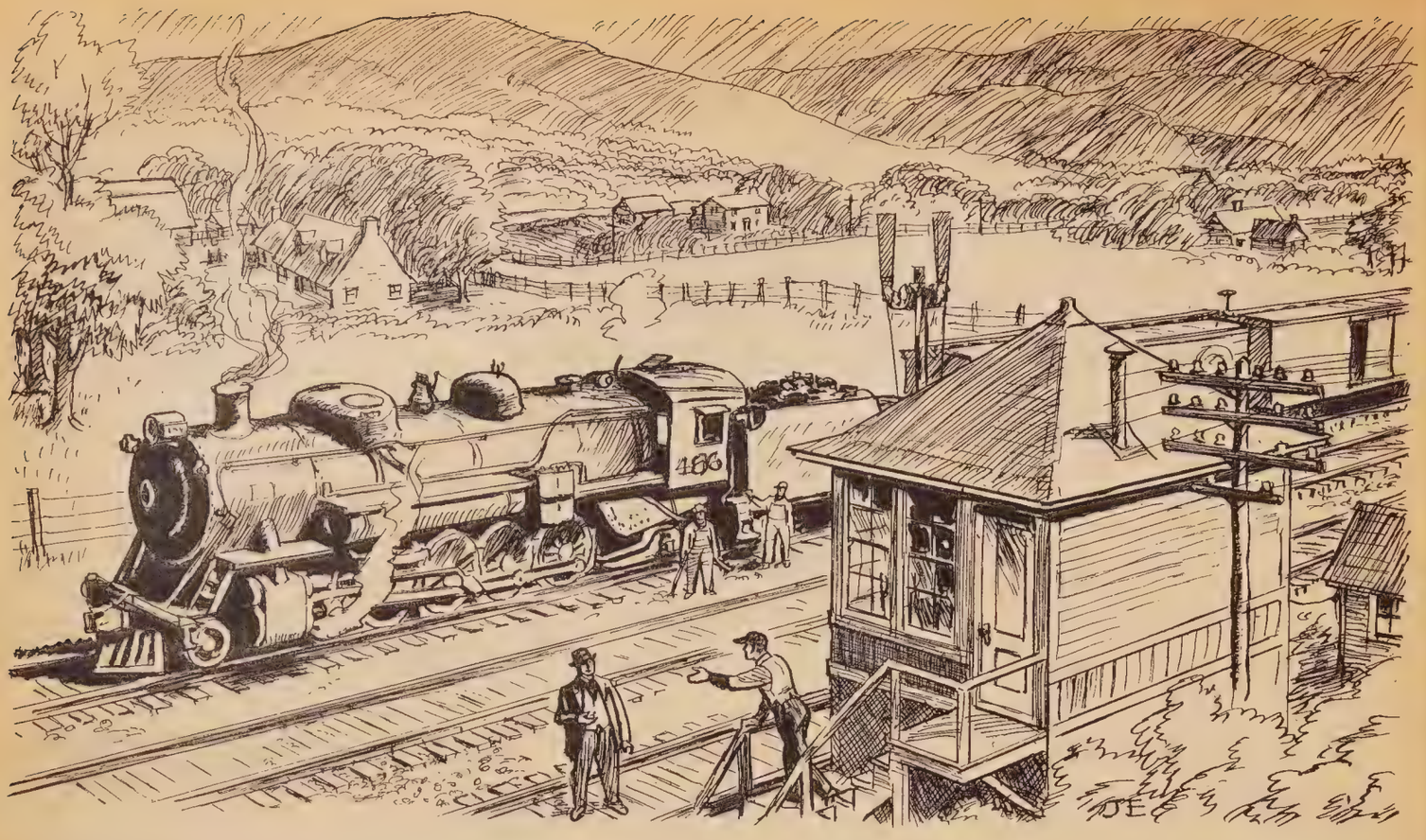
With 45 years of service, this short line (5.226 miles), in California's Central Valley, is a living example of free enterprise and the way a small road, strictly a "family affair," competed with the mighty Central Pacific back in the 1870's. Mr. Rose touches on interurban fever at the turn of the century, the Modesto's line that connected with the Santa Fe, its conversion to diesels, and its status today as a complex terminal industrial operation with 22.5 miles of siding, spurs and joint trackage, which bears the slogan "Modern & Efficient Transportation." The pamphlet includes some good photos of old steam engines.

RAILWAYS THE WORLD OVER, by G. Freeman Allen, Philosophical Library, New York, 128 pages, $10.

This handsome, informative book is lavish with text matter and photos of trains in every land. But more important to our type of reader is the progress shown in locomotive building, not only in North America but elsewhere, from the classic steam engines to the Belgian and French versions of the modern diesels.

by P. C. GRAVES

WATCH THAT BALL... OR I'LL TAKE YOU PAL!
IT'S WORTH THE LOSS IF I WIN THAT GAL!
SMELLS GRAND! PACKS RIGHT! SMOKES SWEET! CAN'T BITE!
YOU'RE A PIPE SMOKING MAN? THEN YOU'RE FOR ME!
IT'S SIR WALTER RALEIGH— NATURALLY!
SIR WALTER RALEIGH'S BLEND OF CHOICE KENTUCKY BURLEYS IS EXTRA-AGED TO GUARD AGAINST TONGUE BITE.
SIR WALTER RALEIGH
FREE!
24-PAGE BOOKLET ON PIPE CARE. JUST WRITE TO: SIR WALTER RALEIGH, DEPT. 035-A LOUISVILLE, KY.



Eddie called down: "Dispatcher's burning up and I can't bust in on him. Didn't he annul your orders when your engine died?"

Wanderlust

A RAILROAD CLASSIC

Originally entitled "Official Appreciation"; copyright 1939 by Popular Publications, Inc.

Eddie Sand Wasn't Afraid of Losing His Own Job, but He Had a Record to Think of When He Went to Bat for a Pal

by Harry Bedwell

EDDIE SAND sat down his half-emptied mug of lukewarm coffee on the telegraph table and pushed aside the remnants of a ham on rye. The brass-throated sounder was stabbing the soft June air with staccato, but the young drifter did not believe in being pushed, and he answered the call leisurely.

"Has extra west showed yet?" the dispatcher pecked at him.

"Not one sign up to now," Eddie sent.

"Listen, boomer," the instrument snapped. "Answer me brief and don't make remarks. I won't tell you again."

Eddie finished his lunch. *That dispatcher,* he decided, *is too efficient for his own good.*

From the left windows of Hobart tower he regarded the rolling Pennsylvania hills, fat and green in the dying sunlight. Busy double tracks cut a gash through the landscape. Farms and villages closely adjoined. It felt cozy here after a desert job in the Southwest.

I'll buy me a new suit, he thought, *and see what the local girls are like. But not redheads.*

No, sir! He had known a redhead named Sabrina who turned out to be dominating and possessive, and this gal had made him wary of carrot-tops in general. Well, the glamour department could wait. First of all he'd have to find lodgings. Eddie surveyed with some gravity a nearby farmhouse that squatted under spreading maples. A slim brunette was doing something to a flowerbed on the lawn.

Wonder if she'd take in boarders? he mused. Then he shifted his gaze. *She's probably married.* Besides, experience on the boomer trail had taught the wily brass pounder to keep a wide margin between his lady friends and the places where he worked.

Taking down the employes' timetable, he noted the station call for Malin, the next tower, five miles to

the west. He tapped out "MA" on the message wire till the circuit broke and someone answered.

Eddie stated politely: "I'm new on second trick at Hobart. Where can I find lodgings?"

The Malin operator was blunt. "I have a place, but my wife wants clean people. Some boomers ain't."

They learn about you quickly in the East, Eddie thought.

"Can your wife cook?" he asked.

"And how!"

Eddie detected a note of enthusiasm. "Tell you what," he offered, "we'll look each other over, and if I stand your wife's inspection and if your grub is okay we'll make a deal. How far would I have to walk?"

"'Bout two miles. It helps your appetite. I do five each way."

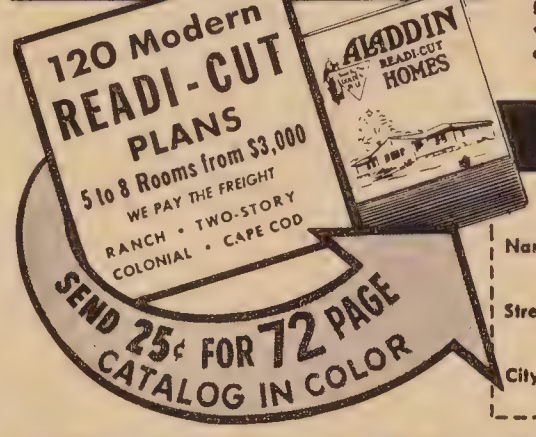
Eddie agreed to that and he pondered over rural cookery. Some of it, he knew, was good. For the first time in a long while he began to feel relaxed. He had traveled far to this point, coming out of Texas in full flight from the rodeo artist Sabrina, an oversexed Amazon who insisted that she was his destiny. Arriving first at Denver, Eddie concluded that the redhead was safely behind him; but in the mile-high city Sabrina suddenly appeared with a circus and renewed her attentions to him.

Thereupon the lightning slinger packed his suitcase again. This time he aimed to put at least half a continent between them, and he did not feel safe until he had crossed the broad Mississippi River. Then the impetus of his dash subsided. He drifted on and on over the lonely trail until he came at last to Hobart tower in the green hills of Pennsylvania. There he found a semaphore, a passing track whose switches he could throw from the tower, and a crossover from one main line to the other, all manually operated. And he said, in the immortal words of Brigham Young, "This is the place."

SIXTY-FIVE-CAR coal drags lumbered past the tower. Short merchandise trains of twenty-five cars burned up the iron and bullied

ALADDIN READI-CUT HOUSES

ARE ENGINEERED TO SAVE YOU THOUSANDS OF DOLLARS!



BUILD IT YOURSELF!—Aladdin designed and manufactured the first Readi-Cut Home over 50 years ago. Tens of thousands of people have discovered how easy it is to build an Aladdin. Our customers have saved thousands of dollars by doing part or all of the work themselves. **NOT PREFABRICATED**—The lumber is cut to fit by precision machines, ready to be nailed in place. Each piece is marked and shown on our erection drawings. **QUALITY**—All materials . . . lumber, doors, windows, flooring, paint, hardware . . . everything furnished are highest quality. Not only do you save—your finished Aladdin Home will be a joy to behold—beautifully designed and solidly constructed to meet the highest building standards. **CATALOG**—Send for Aladdin's handsome new catalog now and you will understand how Aladdin can save you up to 30 or 40% on your new home. Mail the Coupon today.

Mail Coupon to
THE ALADDIN CO. BAY CITY, MICH.

M-37

Name_____

Street_____

City_____ State_____

Are You Giving Your Wife The Companionship She Craves ?

YOU may be giving your wife all the love and care you are able to. You may have given her a good home, security, many of the conveniences all women yearn for. But is she completely satisfied? *Are you giving her the full companionship of the man she loves?*

Or are you always "too tired" at the end of a day's work? Do you come home from work with only the "left-overs" of your vitality for your wife and family? Is time catching up with you *too fast* . . . at work, at play?

If so, your condition may simply be due to a common vitamin and mineral deficiency in your diet. Yes, *you may be well-fed, but poorly nourished.* The food you eat may just not contain the necessary amounts of vitamins and minerals to keep you healthy and vigorous. You owe it to yourself to find out whether a food supplement such as VITASAFE capsules can restore the youthful feeling you'd like to have. And you can find out at *absolutely no cost* by taking advantage of this sensational free offer!

EACH DAILY C.F. CAPSULE CONTAINS

Vitamin A	12,500 USP Units	Vitamin B-6	0.5 mg.
Vitamin D	1,000 USP Units	Vitamin B-12	1 mcg.
Vitamin C	75 mg.	Niacin Amide	40 mg.
Vitamin B-1	5 mg.	Calcium Pantothenate	4 mg.
Vitamin B-2	2.5 mg.	Vitamin E	2 I.U.
		Folic Acid	0.5 mg.

Plus 11 minerals, choline, inositol and methionine.

FREE 30 DAYS SUPPLY OF VITAMINS MINERALS AND AMINO ACID

Safe High-Potency Nutritional Formula

25 proven ingredients—11 Vitamins (including Blood-Building B_{12} and Folic Acid), 11 Minerals, Choline, Inositol and Methionine

Yes, we want to send you FREE a 30-day supply of high-potency *Vitasafe C.F. Capsules* (a $5.00 value) so you can discover for yourself how much healthier, happier and peppier you may feel after a few days' trial!

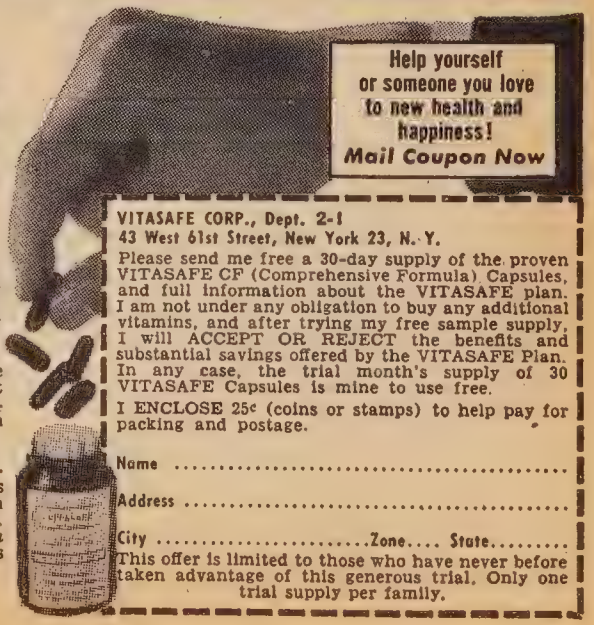
Potency and Purity Guaranteed

You can use these Capsules confidently because strict U. S. Government regulations demand that you get exactly what the label states—pure ingredients whose beneficial effects have been proven time and time again!

Amazing New Plan Slashes Vitamin Prices In Half

With your free vitamins, we will send you complete details of an amazing new plan that provides you with a 30-day supply of vitamins every month for just $2.00—60% less than the usual retail price. But remember—*you're not obligated to buy from us now or ever!* The supply of free capsules is limited—so mail coupon today!

VITASAFE CORPORATION
43 West 61st St., New York 23, N. Y.



VITASAFE CORP., Dept. 2-I
43 West 61st Street, New York 23, N. Y.

Please send me free a 30-day supply of the proven VITASAFE CF (Comprehensive Formula) Capsules, and full information about the VITASAFE plan. I am not under any obligation to buy any additional vitamins, and after trying my free sample supply, I will ACCEPT OR REJECT the benefits and substantial savings offered by the VITASAFE Plan. In any case, the trial month's supply of 30 VITASAFE Capsules is mine to use free.

I ENCLOSE 25¢ (coins or stamps) to help pay for packing and postage.

Name .....

Address .....

City .....Zone.... State.....

This offer is limited to those who have never before taken advantage of this generous trial. Only one trial supply per family.

the drags into the passing tracks so they could get by. A busy spot, yes, but you had nothing to do there except keep the wheels rolling. A nice spot to relax after being mummified in the desert and chased by a wild female—if only that second-trick dispatcher weren't such a pain in the tail!

As Eddie Sand worked his first evening on the new job, and on toward midnight, he learned certain facts about the dispatcher from trainmen who paused at Hobart, from talks with fellow operators on the message wire, and from the way the DS himself carried on.

Cronin, he was named, "Hop-to-It" Cronin—and much worse by the men out on the line. A thin, puckered-faced gent with spectacles and a wart on one cheek. Life to him must have been an ordeal. Mr. Cronin seemed to believe that when he was on duty he had to do all the thinking for the entire division. Nothing in his personality endeared him to operators or train and engine crews. You couldn't reason with him. He *told* you, and that was that. No back talk. Boomers, being an independent breed, were poison ivy to Mr. Cronin.

But Eddie refused to worry. You merely had to watch such guys closely so they couldn't trip you up.

At midnight, on instructions from the Malin operator, he hiked east along the right-of-way under the stars for a mile to the next road crossing. Then he waited. Presently he saw a great hulking figure in the moonlight, a young fellow of about six feet five inches, with shoulders like a boxcar door. His amiable bellow shook the sweet-smelling night air as he approached, and his hand, when he arrived, took hold of Eddie's like a clam shovel.

"Hiya!" he said. "My name is Cy Irwin and I'm mighty glad to see you. Here, let me carry that suitcase."

You might as well have tried to resist a Mallet locomotive. Cy tucked Eddie's luggage under his long dangling arm like a folded newspaper and chatted, mostly in a monologue, as they tramped down the quiet country road. After a while a dim square of light advanced in the tree shadows. Then an old two-story house loomed and a brown shepherd dog bounded out to greet them with loud barking.

"This is Rex," said Cy, patting the animal. "I always did like dogs."

Eddie did, too. Cy pushed open the front door and yelled: "Hey, Ruth! We've got a boarder—if you want him." The shingles rattled far above.

"Bring him in," came a cheerful voice.

"Gee!" Eddie said. "Does your wife always stay up for you?"

"Yeah. She's got to feed me. Either stays up or gets up."

An oil lamp beamed on a red-flowered tablecloth in the kitchen and under its shaded glow a sturdy young woman was arranging dishes of food. She was fresh-looking and her blue eyes sparkled. The top of her blonde head wouldn't reach more than just under Cy's extended arm. She was going to have a baby, Eddie observed, and before summer ended, but she carried her precious burden neatly.

Cy kissed his wife with the sound of a parted air-hose. "Hiya, Ruth!" he erupted. "When do we eat?"

She flashed a smile. "If you can live in the house with a bull elephant," she told the boomer, "we'd like to have you."

He was staring at the table. A stack of quarter-inch-thick slices of pink ham showed richly from a platter. A loaf of whole-wheat bread, home-baked, stood beside a pound of country butter, at least three pounds of yellow cheese, and a huge pitcher of milk, while a plume of appetizing steam blossomed from a big coffee-pot on the coal stove.

Eddie sighed. "Mrs. Irwin, I haven't seen so much victuals at one time since I attended a Texas barbecue."

The kitchen glowed with cheerful green and orange wall paint. Eddie wondered how the Irwins could maintain themselves so bountifully on railroad pay. As the three sat down to eat, Rex lay on the floor.

The giant stoked busily and talked with his mouth full. His wife beamed as she passed the things and encouraged Eddie to gorge. The ham was home-cured and savory with cloves, the bread crunchy, the milk perfect. The cheese had an intimate bite.

Eddie marveled at Cy's capacity for food. Suddenly he felt very much at home with this young couple and their shaggy dog. It seemed that he had come a long wandering way to find peace. The half-remembered women he'd known eons ago, Sabrina and the others, with their empty love, faded into obscurity like old wavering mists on the boomer trail. Here in this large bright kitchen he was glad to relax and forget.

After supper, the Irwins led him upstairs and into a room with a high ceiling and rose-patterned wallpaper. Smells of starched linen and scented soap mingled with the fragrance of honeysuckle from open windows. Eddie Sand tumbled into bed.

HOURS LATER, aroused by Rex's barking and the early sun, he peered drowsily out the window beside his bed. Cy and the dog were urging a Jersey cow through a gate into a fenced square of clover. The placid beast moved deliberately, despite the giant's pleading.

Eddie saw that the barn was freshly whitewashed and in good repair. He noticed the chicken runs and the snowball fluffs of feathers. An enormous black sow with a litter of pigs was munching feed, and a truck garden adjoined, and beside it a patch of tasseled corn swayed in the morning breeze.

Cy entered the barn and emerged with a fat mare, which he hitched to a cultivator. Then the two began jogging up and down the truck-garden rows, while Rex turned his talents to chasing a butterfly. One job wasn't enough for Cy Irwin. Besides being a railroad telegrapher, he was farming a plot of land.

Eddie glanced at the wall clock. It wasn't six yet, so he went back to sleep. Later, when breakfast aromas lured him downstairs, he saw

that Mrs. Irwin had bacon, eggs, fried spuds, and hotcakes awaiting him. Outside, Cy was still working, with apparent ease, lifting his bass voice in song now and then as he followed the mare.

"Quite a farm you've got here," Eddie murmured to the wife.

She smoothed her loose-fitting jacket as if to hide her pregnancy. "We love it," she said.

"This place must have cost you quite a bit."

"Yes, Mr. Sand, and we are still paying for it. If Cy were to lose his telegraph job we'd likely have to give it up. And I know he's not a fast operator. Sometimes he has trouble with the new dispatcher. But I try not to worry."

lie. "Cy can easily handle Mr. Cronin, Eddie reassured her with a white and two young hustlers like you are bound to win. They'd have to call out the Marines to take this place away from you."

BUT AS TIME WENT ON the difficulties with Mr. Cronin increased. Cy's heavy hand couldn't work the key with the fine swift accuracy that Hop-to-It liked, and the kid couldn't always fathom the dispatcher's pecking send when it became obscure under pressure. Even so, the giant was careful and conscientious. Other men on the railroad liked and trusted him.

Eddie Sand made it a practice to listen in on most of the transactions between the two, and one night the dispatcher charged Cy with a ten-minute error in reporting a train by Malin tower. Cronin, in a tearing hurry, had recorded Cy's OS of an extra west as by him at 8:47 instead of 8:37, the time the train had actually passed, and had made dispositions computed on the former time. This had disrupted his line-up and caused delays to three trains.

There is some slight similarity in the Morse code between the figures three and four. Cy's send was deliberate but clear. The dispatcher, Eddie judged, had jumped to a conclusion before Cy had made all the figures, and jotted the time on his

Practice FIXING CARS 10 DAYS FREE!

Fix Any Part of Any Make or Model from 1940 to Today!

Now! Handle practically any car repair or tune-up job like an expert . . . even if you've never fixed a car before.

This giant new 4¾-pound edition of the world's most famous car repair manual helps you locate troubles fast. Then it shows exactly how to fix them. Everything is explained so clearly, it is next to impossible to go wrong!

TELLS YOU HOW SHOWS YOU HOW every step of every job!

Covers every model of these 22 makes:
BUICK • CADILLAC • CHEVROLET • CHRYSLER
CONTINENTAL • DE SOTO • DODGE • FORD
FRAZER • HENRY J. • HUDSON • KAISER
LINCOLN • MERCURY • NASH • OLDSMOBILE
PACKARD • PLYMOUTH • PONTIAC • RAMBLER
STUDEBAKER • WILLYS.

JUST LOOK UP THE JOB YOU WANT TO DO!

Using your Chilton "ALL CARS" Service Manual is like having the 19 Chilton experts who prepared it standing beside you. They guide you every step of the way! From tune-ups and adjustments to engine overhauls; from rear ends to the most complicated transmissions, overdrives, power steering, etc., each job is made amazingly clear. Minor details, often so puzzling to beginners are fully explained. Shows work-saving shortcuts . . . what mistakes to avoid.

Covers practically every job on every car from June 1940 through to today. Used for U.S. Army-Navy Training; in hundreds of schools and in practically every car repair shop in the U.S.A. Contains over 800 pages; 53 Troubleshooting Charts; 397 Quick Check Data Tables. Almost 3000 clear pictures make every job doubly clear to beginners. Price $6.95—but don't risk a cent until you've tried it! Practice 10 days at our risk! Send coupon now.

EXTRA BONUS! 214 Car Service Tips FREE!

For a limited time only, we will include FREE the famous 64-page Chilton SHOP KINKS book with your purchase of the above Chilton "ALL CARS" Service Manual. Tips include easy ways to locate shorts, correct vibration, sticking wiper motors; remove broken studs or frozen bearings; eliminate drive shaft noises—and over 200 more! Any one of them can save you many hours of hard work on dozens of jobs!

MAIL ORDER!...See How Easy It Is!

THE CHILTON COMPANY, Dept. AD-37X
5605 Chestnut Street, Philadelphia 39, Pa.

Send me the big new CHILTON "ALL CARS" REPAIR MANUAL (price only $6.95) for 10-day FREE EXAMINATION. Include the SHOP KINKS book at no extra cost. If I like the "ALL CARS" Manual, I will promptly remit $1.95 (plus 45c postage and handling); then send $2.50 each month for two months in full payment. Otherwise I will return both books postpaid in 10 days and owe you nothing. (SAVE! Send $6.95 with order and we pay postage-handling. Same 10-day return privilege with money refunded.)

Name.....
Address.....
City, Zone, State.....
(Outside U.S.A.—Price $8.95 cash with order.)

ADVERTISEMENT

Do We Have To Die?

Forty-three years ago in forbidden Tibet, behind the highest mountains in the world, a young journalist named Edwin J. Dingle found the answer to this question. A great mystic opened his eyes. A great change came over him. He realized the strange power that knowledge gives.

That Power, he says, can transform the life of anyone. Questions, whatever they are, can be answered. The problems of health, death, poverty and wrong can be solved.

In his own case, he was brought back to splendid health. He acquired wealth, too, as well as world-wide professional recognition. Forty-three years ago, he was sick as a man could be and live. Once his coffin was bought. Years of almost continuous tropical fevers, broken bones, near blindness, privation and danger had made a human wreck of him, physically and mentally.

He was about to be sent back home to die, when a strange message came—"They are waiting for you in Tibet." He wants to tell the whole world what he learned there, under the guidance of the greatest mystic he ever encountered during his lifetime of travel throughout the world. He wants everyone to experience the greater health and the Power, which there came to him.

Within ten years, he was able to retire to this country with a fortune. He had been honored by fellowships in the world's leading geographical societies, for his work as a geographer. And today, 43 years later, he is still so athletic, capable of so much work, so young in appearance, it is hard to believe he has lived so long.

As a first step in their progress toward the Power that Knowledge gives, Mr. Dingle wants to send to readers of this paper a 9,000-word treatise. He says the time is here for it to be released to the Western World, and offers to send it, free of cost or obligation to sincere readers of this notice. In addition he will give to each of them a 64-page book showing the astonishing events the world may soon expect, according to great prophecies.

For your free copy of both works, simply send a postcard or letter to The Institute of Mentalphysics, 213 South Hobart Blvd., Dept. 10-B, Los Angeles 4, Calif.

train-sheet as he thought it should be. When the delays showed up and Mr. Cronin checked for cause, he blasted Cy in thin, pecking vituperations.

"I'm having too much trouble with you, Irwin. Watch your step!"

Cy wasn't cowed. "I've got it down on my block sheet as 8:37," he insisted. "I'm sure I OS'd it that way."

Eddie glanced at his own block sheet, and cut in: "I took the time when Irwin reported it to you," he told the dispatcher, "and I've got it on my sheet as 8:37."

Mr. Cronin exploded. "Listen, boomer! I've told you before that I didn't want anything out of you but what I ask for. Maybe you think Irwin will be easier on your board bill if you back up his alibis. Now you line up or I'll line you out."

That, Eddie reflected, *didn't help Cy any. I'll have to use my head hereafter. Cronin doesn't think he could be wrong.*

The situation was interesting. Eddie had a reputation for handling tough problems—some faded testimonials from brass hats he'd worked for over the years testified to that—and he wanted to be in on the feud between his friend and Mr. Cronin. In a way, the Irwins needed his assistance, at least until the baby came, when the added incentive should do a lot to mature the hulking young giant. So he watched events closely.

He bought the new summer suit he'd promised himself and made a few dates with women he met at the village, but spent most of his leisure doing odd jobs around the Irwin farm. He knew, of course, being a boomer, he'd hit the lonely trail again some day. In the meantime, he basked in the warm Pennsylvania sunshine and, at night, like a chess player, pitted his shrewd brain against the hobgoblins of Fate as the pieces moved hither and yon over the glinting steel rails.

THEN ONE NIGHT Mr. Cronin slipped, and let a quick and ominous situation develop.

A long coal drag, Extra 2727, entered the block at Malin at 7:32. Close behind it was a short merchandise train, Extra 1618. The coal drag needed ten minutes to clear the block at Hobart, while Extra 1618, behind it, would do the distance in hardly more than half that time. It would be close if Extra 2727 could clear the block ahead at Hobart without holding up Extra 1618 at Malin.

Cronin was fussing about it. He had planned for Extra 2727 to take siding at Toban, three miles west of Hobart. He lined up Eddie and Cy sharply as Cy reported the coal drag by his tower.

"Clear Extra 2727 the second she's by you," the dispatcher snapped at Eddie. And to Cy: "Let me know when Extra 1618 comes in sight. Stick close and hop to it, so we won't have to delay Extra 1618 at Malin. Now, don't you two bull this!"

The engineer of Extra 2727 had his long train swinging nicely down the gentle grade approaching Hobart. Eddie leaned out of the tower window and searched for it among the rolling hills. Daylight was fading reluctantly from the summer sky. Presently he caught a drift of thin smoke on the ridges, and then the locomotive broke out of the obscuring cuts close at hand, and called for the board.

"Coming," Eddie reported to the dispatcher, and an instant later, "Coming," Cy reported Extra 1618.

"How close?" Mr. Cronin shot at Cy, and the operator answered: "About a mile. He's rambling."

A few seconds later Eddie reported: "Engine just passing me."

He watched the long line of coal cars rolling and swaying by beneath him.

"He's asking for the board the second time," Cy tapped out.

The coal drag wouldn't clear him in time, Eddie estimated. They'd have to stop Extra 1618 at Malin for the block. Mr. Cronin snapped some impatient I's and asked Hobart, "How near is he by you now?"

Eddie told him, "About half by."

The dispatcher hesitated an instant longer. Merely for the few seconds it would now take Extra 2727 to clear Hobart, he should stop Extra 1618 at Malin. He decided against it, and flung at Cy:

"Give Extra 1618 the board. Clear him at 7:42 and Hobart clear Extra 2727 at the same time—7:42."

Eddie whistled softly. Hop-to-It Cronin was actually sending Extra 1618 into the block before it was cleared and was asking the operators to fake the time on their block sheets so the records wouldn't show that! The boomer glanced at the clock. It was 7:41.

The coal train racketing by beneath him checked a little as the engine took the slight upgrade. Cars rumbled on the rails, their gear clanking.

An abrupt explosion of compressed air shook the tower, followed by a roar as brake-shoes clamped against the line of rolling wheels. Wrenched drawbars thundered together. Spurts of flame licked out from beneath the cars. The drag writhed and howled to a stop. Five cars and the little red caboose were still not clear of the east end of the passing track.

It comes so quick and easy, Eddie thought. *This is that time it didn't work.* He opened the key and flashed to the dispatcher: "Extra 2727 evidently broke an air-hose and stopped without clearing the passing track."

CRONIN didn't grasp the situation with lightning speed. He hesitated for six valuable seconds. Then called Cy. "Is Extra 1618 by yet?"

"Caboose just cleared my semaphore," Cy answered briskly.

Cronin wasted more precious seconds. The quick crisis confused him. He couldn't quite keep up with exploding events. Eddie estimated that he faltered for just the margin of time that allowed Extra 1618 to get away from him.

Then the dispatcher came awake. "Stop him!" he rapped at Cy. "Get out there and stop him!"

Seconds of silence dragged on until Cy came back on the wire. "He was just fading around the first curve when I got downstairs," the big

man sent. "He didn't see me. He is rambling."

The situation hadn't registered on the dispatcher in the brief interval required to handle an emergency. He realized it now, and raved, "You move like an ice wagon!"

Eddie thrust his neck out a window. The head brakeman had come back along the train and paused where the air-hose was broken. The conductor hurried forward. The rear brakeman came down the caboose with a spare hose. Daylight was nearly gone.

"Hey, shack!" Eddie yelled at the rear man. "Grab a lantern and a couple of guns and get back there and flag. Go away back!"

The brakeman glanced up at him and plodded on toward the head end. "Nothin' doin'!" he yelled back. "We've got a block system here to protect us."

Nobody seemed to function promptly in this affair. With time so far lost since Extra 1618 had cleared Malin, which for him was less than six minutes away, that rambling short freight was somewhere near already. She would be spilling out of the cuts right on top of the stalled coal train in not many flying seconds.

Mr. Cronin was calling wildly, but this time the boomer ignored him.

"Hey, wait!" Eddie yelled at the brakeman. "The dispatcher let one of those bobtailed merchandise trains into the block at Malin before you cleared me. He's on his way and coming fast. You get back there right now, or he'll plow into you! Grab your light and run! I mean *run*."

"What you talkin' about?" the brakeman shouted, pausing momentarily. "He ain't allowed to do that."

"You'd better believe he did," Eddie flung back. "He's coming now! Looks like his headlight over the hill!"

A faint moan from the hills filled the quiet summer air. The brakeman dropped the air-hose and dove into his caboose. He came out running, and his lantern streaked up the main line like a scared rocket. In the uncertain twilight that speck of flame might not be noticeable to the engineer of Extra 1618 until he got close onto it. Eddie watched the spark dancing along the high iron.

The headlight showed faintly on the last curve, and then the short freight dropped from the cuts. She was highballing fast. The seconds came big and deliberate before the eagle-eye briefly blasted an acknowledgment of that swinging speck of light. The sound of an emergency application of the air rolled over the hills.

Eddie turned back to his key and broke in on Mr. Cronin's wild calls. "Yeah," he sent placidly, "Extra 2727 got his flag out. Looks like the 1618 is going to get himself stopped before they kiss. But it'll be close."

JUST before going off duty that evening, Eddie called the dispatcher, "It's okay with me the report you make, just so you clear Irwin," he sent.

Cronin made some furious I's. "You'd better pipe down, boomer," he snapped. "I could make it tough for you ever to get another job on any railroad."

"Take it easy," Eddie cautioned.

Cy was anxious when he met the boomer at the crossing on their way home. "Suppose Cronin'll try to hang that on me, too?" he asked.

"I warned him," said Eddie, "and maybe he won't. He wouldn't have much trouble covering it up in the office, but if it comes out he's likely to try to prove he didn't tell you to let that train into the block before it was clear. There's two against him if he tries that. If any papers come to you about what happened tonight, don't answer them till I tell you what to say."

"I won't," Cy promised him.

"And you'd better not mention it to Ruth," Eddie cautioned. "Not yet, anyhow. With the baby coming and the mortgage to be paid, this is no time to worry her."

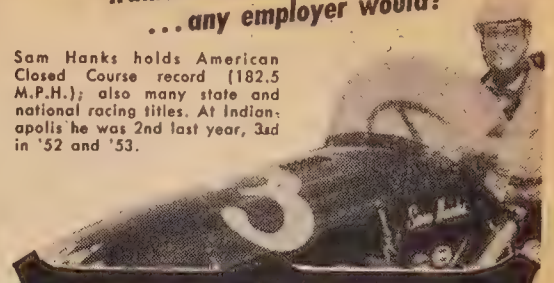
"Whatever you say."

Rex bounding up joyously just then from out of the tenebrous night, with loud barking, like a one-dog reception committee, told the two men that they were home again. Sup-

SAM HANKS, famous race driver-mechanic says:

"I'd like a NATIONAL SCHOOLS trained mechanic on my crew ...any employer would!"

Sam Hanks holds American Closed Course record (182.5 M.P.H.); also many state and national racing titles. At Indianapolis he was 2nd last year, 3rd in '52 and '53.

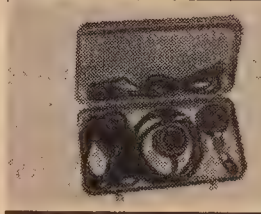


MASTER ALL ENGINES
AT HOME IN YOUR SPARE TIME
NATIONAL SCHOOLS
AUTO MECHANICS & DIESEL COURSE
INCLUDING FUEL INJECTION

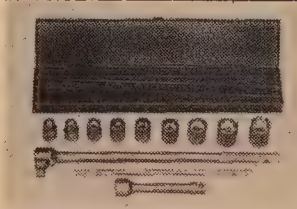
"I've worked alongside National Schools-trained mechanics," reports Sam Hanks. "They're tops, because they get all-around training, and they know how to repair fast and right the first time. No wonder National Schools graduates command top pay."

YOU GET AND KEEP ALL THIS EQUIPMENT

Complete set of professional tools and All-Metal Tool Box. Same top-quality equipment used by expert mechanics everywhere. Use them, display them proudly.



"Motor Analyzing Set" contains Standard Engine Vacuum Fuel Pump Tester, Remote Starter Switch, Modern Timing Light, Standard Compression Tester. Plus compact carrying case & instructions.



Top - quality Socket Wrench with Fittings. Real professional tools you'll use during your lifetime career in repairing all types of engines, from foreign cars to big diesel jobs.

COURSE COVERS: all engines, fuel injection, automatic transmissions, overhauling, customizing, servicing and maintenance.

PREPARES YOU FOR: auto mechanic jobs, airplane mechanics, farm machinery repair, all diesel jobs, experimental labs, government work, engine specialist and all-around mechanic.

Earn as you learn men! We'll show you how. Streamlined lessons, diagrams, manuals, latest equipment, *practical* methods prepare you for hundreds of jobs in scores of industries. Free Placement Assistance.

RESIDENT TRAINING AT LOS ANGELES! If you wish to take Resident Training at Los Angeles, in our big, modern Shops & Labs, check special box in coupon for full information.

APPROVED FOR GI TRAINING
NATIONAL SCHOOLS
Los Angeles 37, California
Canada: 811 W. Hastings St., Vancouver, B. C.

NATIONAL SCHOOLS
TECHNICAL TRADE TRAINING SINCE 1905
LOS ANGELES 37, CALIFORNIA

NATIONAL SCHOOLS, Dept. D3F-27
MAIL NOW TO OFFICE NEAREST YOU

4000 S. FIGUEROA ST. LOS ANGELES 37, CALIF. OR 187 N. LA SALLE ST. CHICAGO 1, ILL.

Send for FREE Auto-Diesel Opportunity Book and Sample Lesson.

NAME _____ AGE _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____
☐ Check if interested ONLY in Resident School Training at Los Angeles
VETERANS: Give date of discharge _____

per was already on the table. They had roast chicken, potato salad, and corn bread, with steaming Java.

"How did things go in the tower this evening?" Mrs. Irwin asked casually as she bustled about.

"Smooth as silk, Ruthie. Plenty of work, though. And how's our baby coming along?"

"Full of life," said Mrs. Irwin, lowering her voice so that Eddie could not hear. "Why, sometimes I can feel the little rascal's feet kicking inside of me," and she smiled shyly.

Eddie was aware that the Irwins, with all their hospitality and real friendship, lived in a world of their own. It was always that way with lovers. They treated Eddie like a member of the family and he appreciated it, but he knew that fundamentally he was alone and that some day he'd be hitting the road again.

By the law of averages, Sabrina was as gone as yesterday and would not show up a third time. Like most men, Eddie recoiled from her type of female, no matter how pretty and alluring, who takes but never gives. There were plenty of other women, both good and bad, young and old, down along the trail, and maybe among the lot he would eventually find the one he'd been seeking these many years.

Yes, at times he dreamed of settling down with a wife and a shaggy dog and maybe two kids. And then the mood would pass, and he'd follow the wild ducks as they flew north or south, exulting in his freedom and stopping now and then for a few months, maybe in the green hills of Pennsylvania or the Petrified Forest of Arizona. Wanderlust! The insistent call of the boomer trail!

Eddie really liked the Irwin family. One after another, pages were torn off the calendar. Before he knew it, fields of goldenrod were heralding the approach of autumn. Soon, very soon, Mrs. Irwin would be giving birth to a new generation. Cy became increasingly nervous as the date drew near. Eddie did what little he could to help them both prepare for the special event.

FOR A WHILE Mr. Cronin helped, too, without knowing it, by dealing a bit cautiously with Cy and Eddie. But apparently he restrained himself only until time could bury his own slip too deeply in the past for its resurrection to discredit him. Then gradually he resumed his needling tactics. He couldn't harass Eddie Sand much, but he pecked at Cy a great deal.

When at last the all-important time came for Mrs. Irwin's pregnancy to reach its natural climax, Cy became helpless and pitiable in his anxiety. The boomer took command of the situation. There was nobody to relieve the young husband on his trick at the tower, so Eddie arranged with the third-trick man there to work in Cy's place, and he himself rode to Malin on a freight, after he had finished for the night at Hobart, and handled the third trick in addition to his own.

Upon reaching home that morning, with a tired sense of satisfaction, he hurried into the house without stopping to pat the dog. Cy was white and unshaven, but a broad grin covered his homely face.

"It's a boy," he said, nearly breaking Eddie's arm as he wrung his hand. "Listen," he sputtered, "we're naming him Eddie, Ruth says so."

The boomer was touched at this unexpected tribute. He thanked Cy and his wife and he wished them great happiness with their son.

"You should get some rest today," he advised Cy. "You need it. I don't mind going to bat for you again."

But the ramshackle wreck wouldn't listen to that. "I can manage fine," he said. The midwife agreed to stay with Mrs. Irwin. Eddie and Cy left the house together, and the boomer warned him to be extra careful.

"You've got a son now," said Eddie, "besides everything else. Keep your feet on the ground and your mind on your work."

When Eddie showed up for duty at Hobart, he found an extra east, a mixed freight, tied up on the passing track because of engine failure. At once he became engaged with the dispatcher, who likewise had just taken over in a rush of traffic. Mr. Cronin was blazing orders all over the division, Eddie and the day man made a hasty transfer. The day man explained quickly that the extra with the "bad order" engine had been there for some hours and that a machinist had come down from town and was tinkering with her.

Eddie was held a long time to the wire by the dispatcher, and then he listened to the 05's and reports from the other towers to inform himself what trains were out on the division. He cleared trains and kept careful check of the stack of orders he had. Then the crippled engine tooted and Eddie went to the window.

The conductor was below. "Hey, my friend!" he called up to the operator. "How's to slip us the block? The nut-splitter says he'd got his hunk of scrap-iron cobbled up so we can shove along. Any chance to let us ramble?"

"I'll try," Eddie yelled back, and turned to the wire. Mr. Cronin was still tense, fighting the delays, and when Eddie tried to interrupt him, he snapped back: "Keep off this wire! Can't you see I'm loaded up?"

The boomer cut in again to explain that the extra was ready to move, but the dispatcher blasted him into silence.

Eddie went out onto the steps and called to the conductor: "Cronin's burning up and I can't bust in on him. Didn't he annul your running orders when your engine died?"

"He did not," the conductor said. "We're still alive and now ready to move. To hell with 'um! Give us the block and we'll be on our way."

Eddie reflected cautiously, but he couldn't find a reason for not giving the extra the block. Mr. Cronin would likely rave at him when Eddie could finally OS the train. But the dispatcher hadn't "killed" the extra, his running orders were yet in effect, and there seemed to be no reason for delaying him any further merely to inform Hop-to-It — who wouldn't listen to him—that the train was moving.

Eddie called Cy at Malin on the

message wire, asked for the eastbound block, got it, and cleared the extra.

"Thank you, Mr. Sand!" The conductor waved. "It's been swell seeing you again. Call and see us any time you're in town."

Eddie watched the freight snake out of the siding and wind slowly up the grade in the fading sunlight.

CRONIN was still keeping the wire hot, and Eddie sat with his hand on the key, ready to report the extra the instant the dispatcher would take it. Then a freight conductor called him on the telephone from an industrial siding a mile to the east. The skipper dictated an order for empties and a report of two bad order cars he couldn't move.

You do a lot of things in one minute in a railroad telegraph station, but even while you handle several items at the same time you are slightly aware of whatever else is going on around you.

The conductor was shouting over the inadequate old telephone, and Eddie had to cut in to give Cy the block for a westbound.

When the conductor finished his dictations, Eddie turned back to the telegraph table, and then from that remote segment of his mind there flashed clearly the events that had transpired on the wire while he was on the phone. The significant train order that Mr. Cronin had just issued, and which Eddie had heard twice repeated, recorded sharply. The brief sentence threaded quickly through his mind as he heard Mr. Cronin snap, "Complete to Malin at 6:47 p.m." And then the question, "Is he coming?"

Cy Irwin answered him promptly: "Right here. I'll have to run."

"Get down there and highball him through," the dispatcher sent. "Hop to it!"

The full details of the situation Mr. Cronin had created dawned on Eddie and he leaped for the key.

Hop-to-It was executing a bit of strategy that he seldom had an opportunity to use on those hot double tracks. With a westbound coal drag already in the block between Malin and Hobart, he was cutting a following passenger train over to the eastbound track, against the flow of traffic, from Malin to Toban so as to get the "streak of varnish" around the slow freight without delay to either.

While straining on the ancient telephone, Eddie had vaguely heard Mr. Cronin send the order to Toban and to Malin, and then heard both operators repeat it. Now Mr. Cronin had completed it to Malin, the passenger train to whom it was addressed was storming down on that tower, and Cy had doubtless already thrown the crossover switch from the tower and was headed out of his office on the run downstairs to deliver the order to that passenger train on the fly.

For Cy, in his abnormal state of mind over the new infant, in the hurry and confusion, and not alert to check this little-used operation, had forgotten that he had given the eastbound block to Eddie and that a freight train that had been hung up at Hobart for hours was now already on the eastbound main line, to which Cy was about to divert the storming passenger.

If Cy were to get out the door to the stairway, he'd be beyond hearing of his telegraph instruments. He couldn't again be reached until he had delivered the crossover order and the passenger was rolling west on the already occupied eastbound track, beyond control. And if that happened, there was sure to be a smashup. Those two trains couldn't avoid it in the cuts and curves.

That ominous picture flashed clearly in the spotlight of Eddie's mind as his hand shot to the key. He made the sounder crackle. "Wait, Cy! Hold it! Are you there?"

But he wasn't allowed to go farther. Mr. Cronin cut in instantly: "Sign! Sign!"

"This is Sand at Hobart," Eddie snapped back. "Cy, hold that—"

Cronin blazed back: "Why in hell are you messing in again? This is the last time for you. Malin, don't delay. Seventy-seven!" He began

MEN PAST 40

Afflicted With Getting Up Nights, Pains in Back, Hips, Legs, Nervousness, Tiredness.

If you are a victim of the above symptoms, the trouble may be due to Glandular Dysfunction. A constitutional Disease for which it is futile for sufferers to try to treat themselves at home. Medicines that give temporary relief will not remove the cause of your trouble.

To men of middle age or past this type of dysfunction occurs frequently. It is accompanied by loss of physical vigor, graying of hair, forgetfulness and often increase in weight. Neglect of such dysfunction causes men to grow old before their time—premature senility and possibly incurable conditions.

Most men, if treatment is taken before malignancy has developed, can be successfully NON-SURGICALLY treated for Glandular Dysfunction. If the condition is aggravated by lack of treatment, surgery may be the only chance.

NON-SURGICAL TREATMENTS

The NON-SURGICAL treatments afforded at the Excelsior Institute are the result of 20 years research by scientific Technologists and Competent Doctors.

The War brought many new techniques and drugs. These added to the research already accomplished has produced a new type of treatment that is proving of great benefit to man as he advances in years.

The Excelsior Institute is devoted particularly to the treatment of diseases of men of advancing years. Men from all walks of life and from over 3,000 cities and towns have been successfully treated. They found soothing and comforting relief and new health in life.

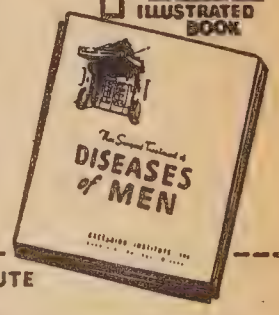
EXAMINATION AT LOW COST

On your arrival here, Our Doctors who are experienced specialists, make a complete examination. Your condition is frankly explained to you with the cost of treatment you need. You then decide if you will take the treatments needed. Treatments are so mild that hospitalization is not necessary—a considerable saving in expense.

RECTAL COLON
Are often associated with Glandular Dysfunction. We can treat these for you at the same time.

Write Today for Our FREE ILLUSTRATED BOOK

The Excelsior Institute has published a New FREE Book that deals with diseases peculiar to men. It could prove of utmost importance to your future life. Write today. No obligation.



EXCELSIOR INSTITUTE
Dept. 4075
Excelsior Springs, Mo.
Gentlemen. Kindly send at once your New FREE BOOK. I am _____ years old

NAME _____

ADDRESS _____

TOWN _____

STATE _____

calling another tower in a hurry.

Eddie concentrated on one issue, to prevent Cy from letting that train by him. He sent crisply: "Hold that order, Cy. This is Eddie," before Mr. Cronin broke him again.

"I'll have a man down there within three hours to relieve you," the dispatcher raved.

Eddie flipped open his key and held it that way for silent seconds. He'd give the man time to collect a little reason or else go mad. Cy Irwin either had, or had not, caught and heeded his warning. The giant was either standing by with his board on Seventy-seven, waiting to proceed until this wrangle got straightened out, or he was down on the platform to hand up the clearing order to the passenger train.

Eddie began to send him cold clarity, unhurried. And Hop-to-It, catching some deadly import in the send, listened without a break.

"Cronin, if you cut Seventy-seven over and let her get by Malin, you'll never sit in a dispatcher's chair again." The curt words streamed swiftly from the instrument. "Cy, don't let him by you! Hold Seventy-seven! The extra east, that was tied up here, left seven minutes ago."

It seemed an hour, but his block sheet and the clock showed only a brief lapse of minutes. "Are you there, Cy?" he asked crisply.

Silence ate into time like slow burning acid. Mr. Cronin opened his key, but closed it quickly. The quiet extended out over all that Pennsylvania countryside.

Silent seconds dropped tensely away while tight nerves tuned up to catch the next signal from the little brass tongue. At last it babbled as a huge hand banged a key.

"I got you, Eddie. I went downstairs as far as I could and still keep my head in the side window to hear you just so I'd have a chance to deliver the order to Seventy-seven on the fly if you changed your mind." Cy was pounding out the letters like a blacksmith. "But I waited for you, and now Seventy-seven's slowing for the board. I overlooked—"

Eddie broke in quickly to interrupt Cy confessing his error. You were like to babble too much about your mistake just after it occurred.

"That's swell, kid," he sent. "Now say nothing and watch your step."

The tension eased. Eddie grinned and informed Dispatcher Cronin: "OS, Extra 2720 East departed 6:40. I tried to tell you that at the time."

"I thought," Cronin faltered, "that I had annulled his running orders when his engine died." He was confessing what he would later try to cover up.

WALKING home together in the starlight that night, Cy was silent for long, reluctant strides. Then he spoke.

"This'll likely mean we'll lose the place, Eddie, 'cause we can't keep up payments without my job. But I guess it's expecting too much luck to be able to keep all I've got."

The thin white dust of the road came up in puffs under his huge feet. From somewhere in the distance Rex was barking.

"That was a dumb thing for me to forget about giving you the block on the westbound," the big boy apologized. "But I don't remember cutting a train over to the opposite track more than once before. I guess I was rattled—and now I'm done for."

"Buck up!" said Eddie. "You're as good as ever. One slip won't get you down. It's not the mistakes that make or break a fellow—it's the way you act about 'em afterward."

He looked back over the years and an overwhelming idea began to shape up within him. On all the roads he'd been he had never made a serious error in handling traffic nor committed a vicious act. Any railroad he'd worked for would probably take him back.

Eddie had kept his record clean. On occasions he had gone far beyond duty to avert a catastrophe. He had handled bad situations with skill and had evidence of this in letters of commendation from officials. But after a certain length of time you can't expect gratitude. People forget and events grow dim as fresh distractions crowd the scene.

He thought of the brass hats he'd known. Buck Barabe, square-jawed and abrupt; Mr. Welby, gray and austere and kindly, and even old Salt-and-Molasses Nickerson, who had acknowledged in writing that he owed Eddie something. And that blazing Irishman, O'Conner, who had awarded Eddie a life pass over his railroad but at the same time had fired him for going beyond the rules to prevent disaster.

It wasn't easy to go back and try to cash in on things that you couldn't have avoided doing anyhow, to humble yourself and ask a favor; but you couldn't let these Irwin kids—three of them now—go to smash unreasonably.

The railroad mills that grind out red tape mixed the items of that night of errors and set them forth in written statements, somewhat vague in places, and dropped them in a file on Superintendent Nathan's desk. The Old Man studied them briefly. Then he penciled a memo ordering his chief clerk to have all the parties involved present in his office at ten the next morning.

The abrupt call went forth to Eddie and Cy and to the crews of the trains involved in Mr. Cronin's mistimed order.

The others had assembled in the superintendent's outer office when Eddie and Cy arrived. Dispatcher Cronin came last. He took a chair by the chief clerk's desk and turned his distrustfully glinting glasses on the rest, but made no remarks.

Most of the men there were subdued, cautious. You never knew what would come out of such hearings. From all indications, Cy Irwin was through; that was a shame. And Dispatcher Cronin. Well, you couldn't be too hopeful about what they'd do to him. Issues get confused; incidents may be distorted by a barrage of words.

The chief clerk eyed the clock and said to Eddie: "You're Mr. Sand? Will you please step into Mr. Nathan's office?"

The men fidgeted in their chairs and regarded Eddie with suspicion. This boomer from the West would

maybe talk out of turn. Eddie walked to the doorway, and the chief clerk closed the door behind him.

SUPERINTENDENT NATHAN was big and rawboned. He frowned at a yellow half-sheet on top of a pile of correspondence on his broad white-oak desk.

"So far as I know," he said, "you are in no real trouble here and yet you have asked some officials on other roads to go to bat for you. Why?"

Eddie gasped in surprise. "I just asked a few men I'd worked for to vouch for me because I was hoping they'd back up what I have to say."

"What do you want to say?"

"It's about young Irwin at Malin tower," Eddie began. "He made one of the mistakes that brought on today's hearing. But there were extenuating circumstances. Only the night before he'd had his first baby, which seems to have been a worse ordeal for him than for his wife. You couldn't let him off duty that night unless I'd work in his place, and I did. The next night when Irwin went on duty he was still upset and needed sleep. But, Mr. Nathan, he instantly picked up my warning that things weren't right and he pulled himself and everybody else out of that hole."

The stone face was inscrutable as Mr. Nathan had turned his swivel chair and was staring out the window. He didn't seem to be listening.

"I'm just asking that you give the kid some kindly justice," Eddie went on, "that will likely pay you big some day. He's a good man."

Lightning shimmered in the hard gray eyes. "You must think a lot of Irwin."

"Happiness is hard to come by," Eddie said. "I don't like to see it destroyed."

Mr. Nathan took four yellow half-sheets from the pile of correspondence and slid them across the desk. "You certainly let off a lot of dynamite to preserve it," he remarked.

Eddie glanced through the telegrams. Then the type began to blur. The sense of the messages was hard to get all at once.

Barabe had wired Nathan: "Thoroughly reliable. One of the best railroad men I ever employed. Any consideration you give him will be much appreciated." Somewhere behind that iron visage, Buck Barabe evidently had a soul.

Welby's said: "Competent and absolutely honest." And old Salt-and-Molasses Nickerson summed it up thus: "If Telegrapher E. Sand has a request to make of you, please grant it and advise."

O'Conner, the wild Hibernian, wrote: "Would consider it a favor if you fire Sand and send him back to me. Any other concessions he asks please confer and charge to me."

Mr. Nathan's voice came to him indistinctly. "Between ourselves, Mr. Sand, how do you rate all this?"

"Maybe I don't," said Eddie, "but those men seem to think so. Mr. Nathan, could you let Irwin down with a stiff reprimand?"

"Oh, that?" said the super with a dry smile. "Of course! I'll handle him myself. Now tell me why a young fellow like you, who has won the esteem of so many officials, hasn't stayed with one of them and gone up the line to a high place. What are you heading for, anyhow?"

It was the natural question of a man bound to his narrow round of responsibilities, a man with a blind ambition to climb, whether it made him happy or not. The tension left Eddie. A faint tang of autumn drifted through the room. The migration season for wildlife was not far off. What did he care for climbing? The more you acquired—position, property, babies—the more worries you had. Better move on.

Wanderlust? Ah, yes. Keep looking for a thing you'll never find. Freedom beyond the tallest hills, beyond the rivers and prairies. Always a finger beckoning, a siren voice calling: *Do not stay too long in any one spot—it will make you soft, and chains will bind you!*

Eddie Sand, on the boomer trail, was building a mansion for his soul from driftwood scattered along the shores of Infinity. Above the coal smoke that seeped in through the windows he caught the scent of goldenrod. Outside, he saw a long, thin switchman atop a string of rolling cars that slid along the silver horizon, one arm extended and waving gracefully.

"What am I heading for?" said Eddie. "Come fall, I think I'll drift South again." ●

DEAD MAN'S CUT

CRASH and boom of thundering stack,
Roar of the drivers' roll,
Grind and growl of straining track,
Crackle of blazing coal—
They sing a song to the glowering lights
That flash from green to red
As we rip a path through the rain and the night
While the white beam streams ahead.

It's a wild, sweet song they sing,
And I slam my window shut
As around a grinding curve we swing,
For we're nearing Dead Man's Cut.
Dead Man's Cut, where a hogger died,
And a shack, and the tallowpot, too:
For the whole damn hill came down in a slide
And buried an engine crew.

And their ghosts are out on a night like this
When the sleet and the wind and the rain
Lash the steel with a screaming hiss
And the rods clash a mad refrain.
Dead Man's Cut! The mist rolls thick.
Was that a flash or red?
I fling my window open, quick
And—God! there's a rock ahead!

—*A. Leslie*

You Can Be A CLAIM INVESTIGATOR

We'll Train YOU for a LIFE OF EXCITEMENT • BIG PAY • SECURITY in the fast growing, billion-dollar Claim Adjustment Field

INVESTIGATE

AUTO ACCIDENTS

WINDSTORM LOSSES

BURGLARIES

Every Community Needs Adjusters

Every second of every day accidents and losses happen — and trained claim adjusters are needed to investigate and to distribute billions of dollars.

Yes, thousands of insurance companies, airlines, railroad companies, steamship lines and Government Offices must continually use Claim Investigators and Adjusters. Trained Claim Agents are *always* in demand. Many earn over $750 a month.

Here is your opportunity. At home in spare time you can learn this fascinating work — easily, quickly.

In taking our Adjuster Training Course you are given the necessary knowledge either to enter your own business or to work with one of the large companies.

Mail This Coupon NOW for FREE Book

UNIVERSAL SCHOOLS, Dept. AM-3
University Park, Box 8202, Dallas 5, Texas

Please rush me your free book on Claim Investigation. This does not obligate me and no salesman will call.

Name_____ Age_____

Address_____

City_____ Zone____ State_____

LEARN PLASTICS

Complete LOW COST Shop Method HOME TRAINING NOW AVAILABLE

Get in on Big Money opportunities in Plastic molding, casting, forming, carving, etc. Earn as you learn with Interstate's professionally prepared course. All plastic materials furnished.

WRITE FOR FREE BOOKLET — **INTERSTATE TRAINING SERVICE** DEPT. C-77, PORTLAND 13, OREGON

EXPERT DICE

CARDS, INKS, etc.

STRONG! RELIABLE!
FREE CATALOG—Send for it Today!

O. C. NOVELTY CO., Dept. 2
1311 W. MAIN, OKLAHOMA CITY 4, OKLA.

SEND FOR THIS FREE!

Make money. Know how to break and train horses. *Write today for this book FREE*, together with special offer of a course in Animal Breeding. If you are interested in Gaiting and Riding the saddle horse, check here ( ) *Do it today—now.*

BEERY SCHOOL OF HORSEMANSHIP
Dept. 843 Pleasant Hill, Ohio

FREE BOOK

ON RUPTURE CARE

Contains much helpful information. Shows how thousands have been helped by the comfortable, safe WEB Truss. Write today to:

WEB TRUSS CO. Dept. AM-3 HAGERSTOWN, MD.

YOURS FREE!

VUER-PROJECTOR & Full Color Slide Kit—Authentic $4.95 Value!

If You're Interested In

BREEDING TROPICAL FISH

For Profit & Pleasure

This handsome, precision-viewing instrument and color slides are yours FREE—just for showing your *interest* in Tropical Fish Breeding! See gorgeous BETTAS, colorful TETRAS, exotic ANGEL FISH, etc., in the vibrant beauty of full color! Convince yourself Tropical Fish Breeding *is the profitable, easy-to-start* home business for you! Breed them in your living room, spare-room, *anywhere. Success is assured because we'll buy every fish you produce!* No experience or costly equipment needed. Start spare-time, on a "shoe-string"...build a $10,000 home business! Investigate!

Write today for FREE details on "Profit-Proven" Success Plan & Vuer! (If under 17, ask for plan A.)

TROPICAL FISH BREEDERS OF AMERICA
Dept. H-3
Los Angeles 61, Calif.

Outside Mexico City is a solid line of deserted trolleys three miles long.

TRANSIT TOPICS

by Steve Maguire

A DRAMATIC sight such as very few of our readers have even seen was viewed by Earl Clark, 2108 Howell St., Covington, Ky., on a recent visit to Mexico City.

Steve Maguire

"I was inspecting the old San Gregorio streetcar line, abandoned last fall," he writes. "The route, beginning about 20 miles from the city's downtown area, has been taken over by buses, but all the trolley wires and tracks are still intact. While riding alongside the single-tracked line I was amazed to find a solid string of ancient, yellow, wooden cars, single-truckers and the like, all deserted and unguarded, some 350 of them, parked bumper to bumper for at least three miles!

"Indian children of the neighborhood were playing in them, but I saw no broken window or other sign of vandalism. That, too, was surprising. I wonder how long 350 cars would stand undamaged if they were left on the outskirts of any U.S. city?"

Abandonment of seven trolley lines in the Mexican capital and the arrival of ex-Detroit PCC cars combined to release from service all the old equipment except 50 Peter Witt steel cars that have been modernized, repainted green and cream, and changed to one-man operation, like the PCC's. The city now has 17 streetcar lines in service, all but three being served by PCC's. It is no longer a haven for the operation of worn-out cars of obsolete design.

Mr. Clark goes on: "The Penon line runs through some of the city's narrowest streets before going onto a

Both Mexican pix by Earl Clark

PCC car: Huipulco station, Mexico.

single-tracked right-of-way through dense adobe slums for several miles to its terminal at the Penon baths. More unusual scenery for a trolley line is hard to find.

"Mexico City has lost nearly all of its streetcar express and freight service, but two special cars (Peter Witts, without their seats) now run in the early morning from farms along the Xochomilco line, bringing produce to the city markets. The city's first PCC, old No. 2000, that was used for years before the Minneapolis and Detroit cars were imported, is now out of service and is being cannibalized for parts."

TAMPICO trolley line in Mexico has recovered from the hurricane that inundated the city last year, and is operating normally again, reports Earl Clark. Not only that, but the company has bought ten PCC cars from the St. Louis Public Service Co. (1600 series) and put them into service. These PCC's do not replace older equipment but are run as extra-fare cars with two-men crews.

Traffic on Tampico's long suburban line is as heavy as present rolling stock can handle. Often the long wooden cars are so crowded that some riders can't even get inside. Two large refineries along the line boost the traffic.

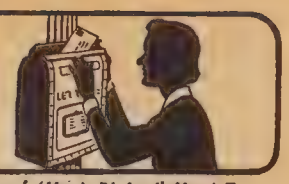
CONGRATULATIONS to the Iowa Chapter, National Railway Historical Society, for having acquired the last true interurban car and thus saved it from the junk pile! We refer to No. 100 of the Waterloo Railroad, formerly WCF&N. Built in 1915 by McGuire-Cummings, the car is 60 feet long, weighs 102,700 pounds, and is valued at nearly $2,000. The car was given to the Iowa group by the Waterloo Railroad, which thus made a fine contribution to posterity. It will be moved to the Southern Iowa Railway trolley freight line, and fans will run it on special trips.

Much work is needed to restore No. 100 to its original beauty. This will be done by the Iowa group, the same that restored Southern Iowa passenger car No. 9 to glistening condition two years ago. Donations of $2 each from fans are being asked to pay for moving and rehabilitating the car. Anyone who wants to assist should write to Elmer Carr, 513 Wabash, Ottumwa, Iowa.

Incidentally, the Waterloo's city car No. 381 is still making six week-day trips a week, two competing bus lines

OPPORTUNITIES FOR EVERYBODY

Publisher's Classified Department (Trademark)



For classified advertising rates, write to William R. Stewart, 9 South Clinton Street, Chicago 6 (Men's Bi-April-May) 7

BUSINESS OPPORTUNITIES

$100-$200 MONTHLY Possible, Preparing envelopes, postcards, from mailing lists at home. Longhand, typewriter. Detailed Instructions only 25c! T. Economy, Box 1686, Clearwater, Florida.

GROW MUSHROOMS. CELLAR, shed. Spare, full time, year round. We pay $3.50 lb. We Paid Bets $4,999.90 in short time. Free Book. Mushrooms, 2954 Admiral Way, Seattle, Wash.

$60 WEEKLY, SPARE time—easy! Home Venetian Blind Laundry. Free book. Burtt, 2434DD, Wichita 13, Kansas.

STAMP COLLECTING

GIGANTIC COLLECTION FREE. Includes triangles, early United States, animals, commemoratives, British Colonies, high value pictorials, etc. Complete collection plus big illustrated magazine all free. Send 5c for postage. Gray Stamp Co., Dept. PL, Toronto, Canada.

FIRST U. N. SET. Among World's Prettiest. Only 10c. Approvals. Welles, Box 1246-PZ, NYC 8.

PERSONAL

KNOW YOURSELF! FOR Your Complete Astrology Reading Send Birthdate With 25c to Nickola, Box 5065, Cleveland, Ohio.

YOUR FAMILY RECORD with Arms: $1.00. Flaherty. Pine. Holyoke, Mass.

ADULTS, "INTERESTING MAILS"—25c keeps your mailbox full three months. Bentz, (Desk-R/70), Chatawa, Miss.

MUSIC & MUSICAL INSTRUMENTS

POEMS WANTED FOR New Songs. Send Poems. Free Examination. Immediate Consideration. Songcrafters, 2724 Arcade Station, Nashville, Tenn.

SHARE $29 MILLION dollars yearly for New Songwriters, songpoets. Information, appraisal Free from Nordyke, 6000 Sunset, Hollywood 28P, California.

MONEY MAKING OPPORTUNITIES

MAKE $25-$50 Week, clipping newspaper items for publishers. Some clippings worth $5.00 each. Particulars free. National, 81-H, Knickerbocker Station, New York.

EXTRA MONEY PREPARING Mailing Postcards, Gul, 1815 Meyers, Lombard, Illinois.

DETECTIVES

LEARN CIVIL AND Criminal Investigation at home. Earn steady, good pay. Inst. Applied Science, 1920 Sunnyside, Dept. 134, Chicago 40, Ill.

LEARN DETECTIVE WORK at home. National Institute, 810 Holland Bldg., St. Louis, Mo.

LAND BARGAINS

TEXAS RESORT-SITE at Falcon Lake. No money down and $7.50 per month buys a beautiful lot adjoining city. Full price only $149.50. Utilities, including City Water. Ideal for vacation, retirement or trailer site living. Write for free photos. P. Matlock, Pipe Creek, Texas.

FOREIGN & U.S.A. JOB LISTINGS

HIGH PAYING JOBS: Foreign, USA. All trades. Travel paid. Information. Application forms. Write Dept. 21D National, 1020 Broad, Newark, N.J.

WORK AT HOME

$18.00 WEEKLY, HANDPAINTING Novelty Plates. No selling, Flocraft, Farrell 25, Penna.

BOOKS & PERIODICALS

FREE ILLUSTRATED HYPNOTISM Catalogue. Write: Hypnotist, 8721 Sunset, Hollywood 46W, California.

HELP WANTED

EARN EXTRA MONEY Selling Advertising Book Matches. Free sample kit furnished. Matchcorp, Dept. GH-9, Chicago 32, Illinois.

OLD COINS & MONEY WANTED

WANTED—CERTAIN CENTS Before 1924 Pay $325.00. Complete Illustrated Allcoin Catalogue $1.00. Worthycoin K-262-C, Boston 8, Massachusetts.

$100.00 FOR CERTAIN Indianheads; Lincoln pennies $50.00. Booklet showing prices paid, 25c. Lincoln Coins, D-277, Glendale, Arizona.

WE PURCHASE INDIANHEAD pennies. Complete allcoin catalogue 25c. Magnacoins, Box 61-JO, Whitestone 57, N.Y.

WE BUY ALL rare American coins. Complete Catalogue 25c. Fairview, Box 1116-CE, New York City 8.

MOVIE FILMS & EQUIPMENT

FREE! BLACKHAWK'S BIG sale catalog new and used 16mm., 8mm. films; 2" x 2" color slides; used 16mm. sound projectors. Biggest stock in U.S.A. Blackhawk Films, 1707 Eastin, Davenport, Iowa.

SAVE FILM $$$$. Fresh 8mm. 16mm. B&W, color film. Home Processing Equipment. Free Catalog. Superior Bulk Film Company, 446 North Wells St., Chicago 10.

LOANS BY MAIL

BORROW $50 TO $500. Employed men and women, over 25, eligible. Confidential—no co-signers—no inquiries of employers or friends. Repay in monthly payments to fit your income. Supervised by State of Nebraska. Loan application sent free in plain envelope. Give occupation. American Loan Plan, City National Bldg., Dept. BC-4, Omaha, Nebraska.

SALESMEN WANTED

MAKE EXTRA MONEY. Cash commissions. Everybody buys easy-to-sell Advertising Book Matches. Union label. Big variety—Glamour Girls, Scenics, Hillbillies. Powerhouse selling kit Free. Steady repeat business. No experience necessary. Superior Match Co., Dept. G-457, 7528 S. Greenwood, Chicago 19.

HOME SEWERS OPPORTUNITIES

$200. MONTHLY POSSIBLE, Sewing Babywear! No house selling! Send stamped, addressed envelope. Babygay, Warsaw 13, Indiana.

WIVES—INCREASE FAMILY income by spare-time sewing. $40 week possible. Write Tiny-Tot, Gallipolis 15, Ohio.

CIVIL SERVICE

U.S. CIVIL SERVICE Tests. Training until appointed. Men-Women, 18-55. Start high as $340.00 month. Experience often unnecessary. Get Free 36-page book showing jobs, salaries, requirements, sample tests, benefits. Write today: Franklin Institute, Dept. C-49, Rochester, N.Y.

INVENTIONS WANTED

INVENTIONS NEEDED IMMEDIATELY for manufacturers. For additional information write Kessler Corporation, 12-AB, Fremont, Ohio.

EDUCATIONAL OPPORTUNITIES

COMPLETE YOUR HIGH School at home in spare time with 60-year-old school. Texts furnished. No classes. Diploma. Information booklet free. American School, Dept. X418, Drexel at 58th, Chicago 37, Illinois.

PHYSICAL THERAPY AND Massage Pays Big Profits. Learn at home. Free Catalog. National Institute, Desk 12, 159 East Ontario, Chicago 11.

LEATHERCRAFT

FREE "DO-IT-Yourself" Leathercraft Catalog. Tandy Leather Company, P. O. Box 791-L20, Fort Worth, Texas.

AGENTS WANTED

SEEKING NEW PRODUCTS? Get my outfit 47 money-making specialties. Latest conveniences for home, car. Send no money. Just your name. Kristee 135, Akron, Ohio.

Free! Fabulous Collection from SOUTH of the BORDER

Get this big, valuable collection of genuine, all-different postage stamps from the exciting land of the mysterious Amazon . . . scarce airmails, gorgeous commemoratives, giant-sized stamps picturing wild horses, covered wagons, action-packed fights, native war heroes; PLUS sensational train stamp, beautiful "Christ of the Andes"; many others. EXTRA! Bargain Catalog, "Collectors' Manual" plus other exciting offers for your inspection. Send 10¢ for mailing costs. ACT NOW!

JAMESTOWN STAMPS, N3AG JAMESTOWN, N.Y.

ARTHRITIS?

I have been wonderfully blessed in being restored to active life after being crippled in nearly every joint in my body and with muscular soreness from head to foot. I had Rheumatoid Arthritis and other forms of Rheumatism, hands deformed and my ankles were set.

Limited space prohibits telling you more here but if you will write me I will reply at once and tell you how I received this wonderful relief.

MRS. LELA S. WIER
2805 Arbor Hills Drive — 52
P. O. Box 2695
Jackson 7, Mississippi

READY CUT HOMES DO-IT-YOURSELF $AVE!

BUY DIRECT FROM MILL & SAVE ON LABOR COSTS

You can assemble any of the 57 designs from easy-to-follow plans. Every piece marked, easily identified, ready to erect. No measuring or cutting. It's all done economically by precision machinery (not prefabricated). Save high labor costs and material wastes. Save contractor's profit and overhead. Complete with hardware, paint, nails, roofing, glass, etc. Sterling Homes are modern designed for modern living. Plans sold separately.

FIVE EASY PAYMENT PLANS — MONTHLY PAYMENTS

ORDER TODAY SAVE UP TO 40%

PRICED FROM $2150.00 AND UP*

SEND 25c Color Catalog Including Floor Plans

INTERNATIONAL MILL & TIMBER CO., BAY CITY, MICH. DEPT. AD37

SAVE 75% ON
WORK CLOTHES!
SURPLUS STOCK FROM MID-WEST SUPPLY FIRM! Terrific values you've got to see to believe!
SHIRTS 79¢
Made to sell for 2.99! Now Only 4 for $2.99
What a buy! 4 for the price of one! These shirts, though used, are washed, sterilized and ready for long, tough wear. In blue, tan or green. Send neck size, 1st and 2nd color choice.
PANTS to match 99¢
Sold for 3.95 now only . . . . . 4 for $3.75
Unbelievable Bargains! Send waist measure and inside leg length.
COVERALLS . . . wear 'em used and save plenty! Originally 6.95. Now only $2.29
Send chest measurement. 3 for $6.75
SATISFACTION GUARANTEED! Your money back if you can beat these bargains anywhere! You can't lose so order TODAY for immediate delivery! Send $1.00 deposit on C.O.D. orders. Add 25¢ postage and handling on prepaid orders.
GALCO SALES CO. Dept. 403
7120 Harvard Ave. • Cleveland 5, Ohio

Cabinet Making
LOW COST HOME TRAINING COURSE for Beginners & Advanced Craftsmen
Make money. Learn skills and secrets of fine woodworking and tool use. Professionally prepared shop method training tells and shows how. Covers everything. Easy to master.
Write for Free Booklet
INTERSTATE TRAINING SERVICE
DEPT. F-77, PORTLAND 13, OREGON

WE MATCH PANTS To Any Suit!
Double the life of your coat and vest with correctly matched pants. 100,000 patterns. Every pair hand tailored to your measure. Our match sent FREE for your O. K. before pants are made. Fit guaranteed. Send piece of cloth or vest today.
SUPERIOR MATCH PANTS COMPANY
209 S. State St. Dept. 106 Chicago

ACCOUNTANT
BECOME AN EXPERT
SEND FOR FREE BOOK
Executive Accountants and C. P. A's earn $4,000 to $10,000 a year and up. Thousands needed. We train you thoroly at home in spare time for C. P. A. examinations or executive accounting positions. Previous experience unnecessary. Personal training under supervision of staff of C. P. A's and Expert Accountants. Get all the facts. Write for free book. "Accountancy, the Profession That Pays."
LASALLE Extension University, 417 So. Dearborn St.
A Correspondence Institution, Dept. 359-H Chicago 5, Ill.

LAW FREE BOOK THE LAW TRAINED MAN
Write today for a FREE copy of illustrated law book, "THE LAW-TRAINED MAN," which shows how to earn the professional Bachelor of Laws (LL.B.) degree through home study of the famous Blackstone Law Course. All necessary books and lessons provided. Moderate cost; convenient terms. Write for FREE law training book today.
Blackstone School of Law, 225 N. Michigan Ave.
Founded 1890 Dept. 423 Chicago 1, Ill.

Let me show you
HOW TO SPEAK AND WRITE LIKE A COLLEGE GRADUATE
I have helped thousands of men and women who have not had college training in English to become effective speakers, writers, and conversationalists. With my new C. I. METHOD, you can stop making mistakes, build up your vocabulary, speed up your reading, develop writing skill, learn the "secrets" of conversation. You don't have to go back to school. Takes only 15 minutes a day at home. Costs little. 32-page booklet mailed FREE upon request. Send me a card or letter TODAY!
Don Bolander, Career Institute
Dept. 103, 25 East Jackson, Chicago 4, Illinois
Please mail me your FREE 32-page booklet on English.
Name
Address
City Zone State

along its five-mile route to Cedar Falls having ceased operating. The car is paying its own way. The real reason for its continued service has something to do with a franchise obligation which allows the Waterloo to run freight over the route.

O. R. CUMMINGS' article, "Trolley Town, U. S. A.," which told the story of the Seashore Electric in our August '56 issue, was partly responsible for that outdoor museum having the best season in its history. Between July 4th and Labor Day last year it had more than 15,000 visitors. Many said they had come to Kennebunkport, Maine, as a result of reading the Cummings article. A number of *Railroad Magazine* readers joined the organization as a result. Two or three gave sizable sums to the cause.

New juicefan publications include Mr. Cummings' 36-page history of the Biddeford & Saco trolley line in Maine. The well-known trolley historian presents a complete account with pictures, roster, map and drawings, published by the Electric Railway Historical Society. Copies may be had from the author, 300 North Bay St., Manchester, N. H., at $1.50 each.

SOUTHERN CALIFORNIA CHAPTER, NRHS, publishes a quarterly. A recent issue features 15 pages on the Honolulu Rapid Transit system that operated streetcars from 1888 until five months before the Pearl Harbor attack. Photos, map, and roster embellish the text. This issue may be obtained at $1 per copy from *Pacific Railway Journal*, 2304 Melville Dr., San Marino, Calif.

Also available is a 1955 issue of the *Journal* featuring the Pacific Electric's Mount Lowe Railway, which included a famous incline: 12 pages, photos, maps, roster, and text, 50 cents.

NEW YORK STATE now has only one trolley line in operation, the two-mile Queensboro Bridge shuttle in New York City, and even that one is asking for permission to convert to bus service. The final remnant of a once-gigantic Brooklyn trolley system faded into memory last October 31 with the end of service on the McDonald and Church Avenue lines. There was no closing ceremony. The cars just rolled to a stop at the barns and power was shut off. That ended 69 years of Brooklyn trolley service.

Locomotives of the South Brooklyn Railway will continue to use the rails on part of the McDonald Avenue line for switching purposes.

Coincidentally, on the same day that trolleys stopped, the Brooklyn Dodger baseball club, originally nicknamed the *Trolley Dodgers* because of the streetcars, sold their Ebbetts Field in Brooklyn and started looking for another home, possibly outside the borough.

CANADA'S interurban lines were cut down by one when the Montreal & Southern Counties gave way to buses last October 14, six months after the original date set for that event. The Montreal South and Mackayville track will be pulled up, but most of the main line of the interurban route through Brookline, Chambly, and Marieville will continue to be served by Canadian National diesel-powered trains operating between Montreal and Water-

Stephen D. Maguire

Good-bye forever! Buses have replaced M&SC cars such as those shown here.

loo, which is a bit of consolation.

Resumption of bus service on the Montreal-St. Lambert route of M&SC completes a cycle that began in 1904 when Canada's first bus line began running between those cities. In 1909 M&SC displaced the buses. Now, 47 years later, the buses come back.

SOUTH AFRICA has very few trams (streetcars) left, laments F. W. Craandyk, 917 Beyers St., Rietfontein, Pretoria, South Africa. He plans to build a big layout of model trams and wants to hear from other fans, with a view to exchanging pictures of trams and trains.

AT LEAST one HO model interurban line is operating in Germany, reports Airman Kenneth E. Sorenson, Perry, Iowa. He and Albert Sworigen of Washington, D. C., have set up a model line in the U.S. Air Station at Erding, Germany, with two interurban, two city cars, and one locomotive model in service. Sorenson writes that in nearby Munich the prototype trolleys are running on about 20 lines, which are rapidly getting new equipment and on which pantographs replaced trolley poles about two years ago.

SPRINGFIELD TERMINAL RY. has converted its trolley freight line to diesel. Dwight A. Smith, Jr., general manager, says "open house" was held in connection with a last trip by electricity, in motor No. 15. All wire has been removed from the right-of-way. Motors 15 and 16 were sent overseas. The Warehouse Point, Conn., trolley museum has obtained line car 8, snowplow 12, and work car 16.

"HOW do you convert regular trolley wire overhead for use by pantographs on a model line?" asks reader Phil Kotekamp, Cleveland, Ohio. "I am tearing down my trolley model layout that had pickup by pole, so as to convert to high-speed pantograph operation, and I want to install switch yards. One fellow says you need a carrier wire to stiffen the lower or pickup wire, but that looks like a lot of soldering."

Phil gave no street address, but maybe some reader will send us the answer to his problem and we'll print it.

LAST piece of electric trackage in Evansville, Ind., the Cook Transit, has suspended operations, according to John F. Kusse, Bellefonte, Pa. An ex-Evans-

WOULD YOU LIKE TO RECEIVE STACKS OF LETTERS LIKE THESE EACH WITH MONEY FOR YOU?

I have found a proven formula for quick success in making money. Others I've shared it with also have been successful. Would you like to know about it?

It's simpler than you might think — just buying good imports at next-to-nothing foreign prices and selling them in the U.S. by mail order or at wholesale to stores.

To most people, importing smacks of mystery, romance — and "costly" things for collectors. Actually, any capable and ambitious man or woman should learn import-export quickly. And, there are thousands of beautifully made imports obtainable at trifling cost abroad to sell in the U.S. by mail order. There are also great opportunities in exporting U.S. products.

Native villages in Africa, romantic Vienna, bustling Copenhagen, mysterious Hong Kong — yes, countryside hamlets and great cities all over the world produce fascinating products.

Using my plan, you don't have to travel abroad unless you want to. You don't even have to know a foreign language. And, there is no face-to-face selling in mail order.

I have proven this plan with 103 imports — and the opportunities for the sale by mail of thousands more are breathtaking in their possibilities. Hunting knives and binoculars from Germany, silverware from Sheffield, England — hand-carved art objects from Africa — all costing less than $1 abroad have values up to $5 or more here and are big sellers by mail order.

Monthly bulletins sent free to those who follow my plan show suppliers of new and desirable imports.

As I write this, I am receiving as many as 1,000 cash orders a day for imported clocks — all by mail order. They cost me only 63¢ and I sell them far below the U.S. market — a terrific bargain and a wonderful seller. And, I don't stock them as they are shipped direct to the buyers from abroad, *after I receive the cash.*

So you see, it is even possible to conduct a business of this kind without investing in merchandise.

Mrs. McGinn, one of my students in Illinois, operates a gift shop and sells Arabian perfume by mail order. F. Basler, N. J., sells Aztec bird feather pictures from Mexico to stores and by mail order.

You might ask, "Why do you let others in on your plan? Why don't you keep it all for yourself?" The answer is that items for import are countless. No one person could possibly handle even a small proportion of them. There's plenty of business in import-export for you and me and many others.

If you are sincere and really open-minded to a new and different opportunity — one which may change your whole idea of the kind of money you can make in your own full or part time business — write today for full details. Air mail reaches me overnight.

B. L. Mellinger, Director, Dept. G1124
1717 Westwood, Los Angeles 24, Calif.

— — — — AIR MAIL THIS COUPON NOW — — — —

B. L. Mellinger, The Mellinger Co., Dept. G1124
1717 Westwood, Los Angeles 24, Calif.

Mr. Mellinger: Without obligation, show me the big profits to be made through World Trade, especially in mail order from my own home.

Print Name.....

Address.....

Town & Zone.....State.....

"I'M MAKING MORE THAN $1000 a Month

C. KAMA

HAVEN'T TOUCHED BOTTOM YET!"

—reports Charles Kama, Texas, one of many who are "cleaning up" with orders for PRESTO. Science's New Midget Miracle Fire Extinguisher. So can YOU!

Amazing ***new*** kind of fire extinguisher. Tiny "Presto" does job of bulky extinguishers that cost 4 times as much, are 8 times as heavy. Ends fires fast as 2 seconds. Never corrodes. **Guaranteed for 20 years! Over 2 million sold! Sells for only $4.95.**

Show it to civil defense workers, owners of homes, cars, boats, farms, etc., and to stores for re-sale—make good income. H. J. Kerr reports $20 a day. Wm. Wydallis $15.20 an hour. FREE Sales Kit. No obligation.

MERLITE INDUSTRIES, Dept. P-23R
PRESTO DIV., 114 East 32 St., New York 16, N.Y.
Canada: Mopa Co., Ltd., 371 Dowd St., Montreal 1, P.Q.

Borrow $100 to $600 BY MAIL

Need money? No matter where you live . . . you can borrow **BY MAIL**, $100.00 to $600.00 . . . this easy, quick, **confidential** way. **No endorsers needed.** Solve your money problems quickly and in complete privacy **with a loan made by mail.** Employer, relatives and friends will not know you're applying for a loan. Convenient monthly payments. Rush coupon for Loan Order Blank sent FREE in plain envelope. No obligation. No agent will call.

STATE FINANCE CO., 323 Securities Bldg.
Dept. L-203, OMAHA 2, NEBRASKA

FREE LOAN ORDER BLANK in Plain Envelope

STATE FINANCE CO., Dept. L-203,
323 Securities Bldg., Omaha 2, Nebraska
Please rush FREE Loan Order Blank.

NAME _____

ADDRESS _____

CITY _____ STATE _____

Amount you want to borrow $ _____

MEAT CUTTING Offers YOU SUCCESS And SECURITY

In The Best Established Business In The World • PEOPLE MUST EAT!

TRAIN QUICKLY in 8 short weeks for a bright future with security in the vital meat business. Trained meat men needed. Big pay full-time jobs, year-round income, no layoffs—HAVE A PROFITABLE MARKET OF YOUR OWN!

LEARN BY DOING AT NATIONAL

Get your training under actual meat market conditions in our big modern cutting and processing rooms and retail department.

PAY AFTER GRADUATION

Come to National for complete 8 weeks course and pay your tuition in easy installments after you graduate. Diploma awarded. Free employment help. Thousands of successful graduates OUR 35th YEAR!

FREE CATALOG—MAIL COUPON

Send now for big new illustrated National School catalog. See students in training. Read what graduates are doing and earning. See meat you cut and equipment you work with. No obligation. Send coupon in envelope or paste on postal card NOW! G.I. Approved.

NATIONAL SCHOOL OF MEAT CUTTING, INC.
Dept. AD-21 Toledo 4, Ohio

National School of Meat Cutting, Inc.
Dept. AD-21, Toledo 4, Ohio

Send me your FREE School catalog on National Training at Toledo in Meat Cutting, Meat Merchandising and Self Service Meats No obligation. No salesman will call.

Name.....Age.....

Address.....

City.....State.....

Approved for training Korean Veterans

LINGUAPHONE
MAKES IT EASY TO LISTEN and LEARN to Speak

SPANISH (American or European) • FRENCH
GERMAN • ITALIAN • JAPANESE
MODERN GREEK — any of 34 languages
available for FREE TRIAL AT HOME

Only LINGUAPHONE, The World's Standard Conversational Method, brings 8 to 12 of the world's best native language teachers into your home. You listen to Linguaphone's life-like, conversational recordings for 20 minutes a day and learn another language—the same easy, natural way you learned to speak long before you went to school.

It's like living in another land. You Listen . . . You hear native men and women converse about up-to-date, everyday matters. You Understand. You SPEAK. You acquire a true accent no TEXTBOOK CAN TEACH.

Exciting Business, Travel Opportunities Here and Abroad. Linguaphone is used around the world by schools, governments, business firms. Over a million home-study students have learned another language this ideal way.

Stop Wishing—Start Talking! Send for FREE Book and Details of FREE TRIAL. Linguaphone Institute, T-326-037 Radio City, New York 20, N. Y.

40 ACRE GOVERNMENT OIL LEASES—$100

You do no drilling, pay no taxes, may realize a king-size profit without ever leaving home. Write for free map and literature.

American Oil Scouts, Dept. AM, 7321 Beverly Blvd. Los Angeles 36, Calif.

VANISHING CIGARETTE TRICK

WHERE DOES IT GO?

Make Magic Your Hobby!

Borrow a lit cigarette—PUSH it into fist—open fist—cigarette is GONE! Then reach into any pocket and produce LIT cigarette! Rush $1.00 for this EASY-to-do trick and catalog of 500 other terrific tricks.

SATISFACTION GUARANTEED
D. ROBBINS & CO., Dept. B-3
127 W. 17 St., New York 11, N. Y.

LET THIS FREE SHIRT SAMPLE OUTFIT MAKE MONEY FOR YOU!

Get Your Own Shirts As Bonus!

Wear quality Packard Made-To-Measure shirts you get Free as bonus, and earn big money showing them to men! Smart fabrics, latest Dress and Sport models sell fast at $3.95 up. You average $90.00 a week on orders a day! Perfect fit guaranteed. Earn full time, part time or side line. No experience needed. Write for new FREE Sample Outfit and Bonus Shirt Offer NOW!
PACKARD SHIRT MFG. CORP., Dept. 410 Terre Haute, Ind.

BECOME AN EXPERT IN
TRAFFIC and TRANSPORTATION

Traffic men earn $4,000 to $10,000 and up. Thousands of firms need experts on rates, tariffs, regulations. We train you thoroly in spare time at home for executive traffic jobs. Personal training under traffic authorities. Write for free book "Traffic and Transportation."
LASALLE Extension University, 417 So. Dearborn St.
A Correspondence Institution Dept. 359-T Chicago 5, Ill.

PEE WEE BATTERYLESS TUBELESS "LIFETIME" RADIO

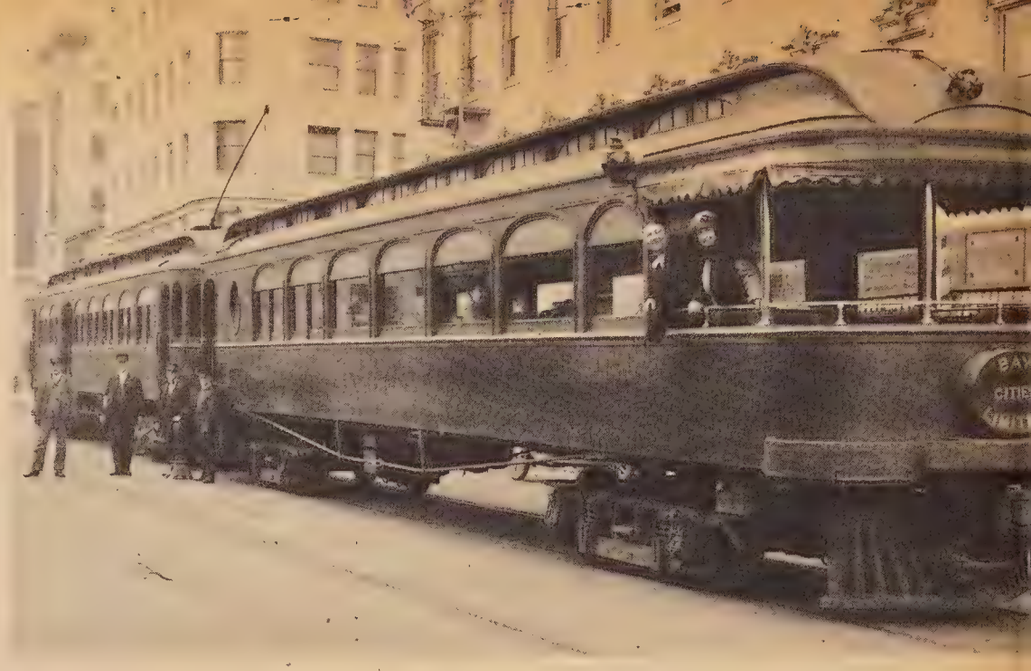
REALLY WORKS—FOR LIFE! Works WITHOUT TUBES, BATTERIES OR ELECTRICAL PLUG-INS. Never runs down. ozs. SMALLER THAN A PACK OF CIGARETTES! GUARANTEED TO RECEIVE LOCAL STATIONS ANYTIME—ANYWHERE YOU GO! Sensational new Ferrite Selective Tuner—Perma-Crystal diode, Super SPEAKER-PHONE. Durable black and gold plastic case.

SEND ONLY $2.00 (bill, ck, mo) and pay postman $4.99 COD postage on arrival or send $6.99 for postpaid delivery. SENT COMPLETE READY TO LISTEN WITH LIFETIME GUARANTEE. Nothing extra to buy—ever. Available only from:
MIDWAY COMPANY, Dept. WA-4, KEARNEY, NEBRASKA

OPPORTUNITIES AHEAD! TRAIN FOR A FUTURE IN DIESEL

Prepare for the big earning power of Diesel Trained Men. Start learning at home, in spare time. UEI's easy, practical training covers all phases of DIESEL engine operation, fuel systems, auxiliary equipment, repairs and maintenance. Also new Scientific Auto Motor Tune-up. After home course, you come to Chicago for actual practice in UEI's modern shop under experienced instructors. GET ALL THE FACTS FREE. WRITE TODAY!

DIESEL DIVISION UTILITIES ENGINEERING INSTITUTE
2521 Sheffield Ave., Dept. DAY-8, Chicago 14, Illinois



In the heyday of interurbans Sacramento Northern had a parlor car, *Bidwell*, on its fast *Bay Cities Limited*, shown in Sacramento. Photo was made on glass plate now owned by David L. Joslyn, 2164 Castro Way, Sacramento, Calif.

ville & Ohio Valley electric locomotive had served the short switching line around the Cook Brewery.

OKLAHOMA'S final electric road, freight only, the Tulsa-Sapulpa Union, is still a juice line. Jerry Moore, 1616 W. 17th St., Tulsa, Okla., sent us a photo of one of the ex-Sand Springs electric motors now operating on the TSU in nearby Sapulpa. TSU purchased two of the eight Sand Springs locomotives. The other six were scrapped and replaced by diesels in 1955.

"ALTHOUGH no trolleys have been running in Dunedin, New Zealand, for a year, a single cable-car line there is still operating, though probably not for long," writes Ken McCarthy, Loftus, N.S.W., Australia. The cable line, last in the world outside San Francisco, runs on a fairly long line to Mornington, N. Z. Besides street running, it has a short stretch of right-of-way up a hill completely off the city streets, which is novel, to say the least.

New Zealand's only remaining trolley lines are at Wellington and Auckland, both doing well. ●

THE METROPOLITAN TRANSPORTATION PROBLEM, by Wilfred Owen, The Brookings Institution, 722 Jackson Pl., N.W., Washington, D. C., 301 pages, with illustrations, maps, and charts, $4.50.

With regard to traffic problems in heavily populated areas, Mr. Owen provides the latest word in planning for urban and suburban development. He covers all types of transportation—railroads, freeways and highways, buses and streetcars, subway and elevated lines, and even helicopters. For this reason the book does not appeal mainly to railfans or trolley enthusiasts but is a valuable guide to all persons who are interested in solving the riddle of getting traffic into and out of metropolitan areas. The private automobile is here to stay. Mr. Owen states that rapid transit lines can pay their own way only in communities where the high density of surface traffic makes adequate parking impossible.

Tied in with transportation is the vital matter of decentralizing urban areas in future planning. Decentralization is becoming more and more necessary, even aside from the rather remote possibility of atomic war. Just what effect, if any, the recent events in Egypt and the Far Eastern oil fields will have on North American urban transportation is a matter for speculation. One fact is reasonably clear. The graphs in this book that show the ever-growing use of "the family car" point to increasingly difficult problems for commuters by rail and local transportation systems.

Mr. Owens offers one solution, namely, an entirely new metropolitan governmental authority based on a federation of cities that have the responsibilities not only of traffic and transportation but also of tax assessment, parking facilities, and air, water, rail, and bus terminals, as well as health, welfare, and public safety. Future planning, even in peace time, is not simple. It is a complicated pattern for survival. ●

MAIL CAR

(Continued from page 12)

DOG FLAGS TRAIN. Joe Tofani of Connelleville, Pa., is an extra gang foreman on the Western Maryland. One day he found a deserted bitch which had just whelped a black Airedale puppy. Joe adopted the puppy, named him Teddy, and taught him to flag trains which approached the spot where his gandy dancers were working. Engine crews took a liking to Teddy and respected the red flag he carried in his jaws. The Airedale lived in a camp car with Joe, stayed close to him outdoors, regardless of weather, and continued to help protect the track gang till a motorcar killed him at age ten.

Today, Joe is training another pet. Says he, "A fellow needs a dog." But he'll never forget Teddy. ●

IF YOU ever happen to be looking for a man named Kadel at the Southern's Inman Yard in Atlanta, Ga., here's a friendly tip: don't just ask for Mr. Kadel. Six men by that name work in the same yard—a father-son-grandson combination. One guy remarked: "If you have anything to say against the Kadels, you'd better not say it. There may be one standing right behind you." Two Kadels are engineers; four are switchmen.

Speaking of rail families reminds us that George Taylor, Sr., a retired hogger of Massillon, Ohio, and his eight sons, a grandson, and a sister have piled up a total of 261 years of Nickel Plate seniority, reports Joe Steele. ●

MODERN "mechanical surgery" has brought new vigor to a sick and travel-worn locomotive by replacing its diesel engine with a block of concrete!

Chicago & North Western mechanical experts rescued her from the scrap heap and sent her back on the road for many additional years of useful service. They now plan to revive several additional diesel locomotives which have completed their normal life span.

The first subject was No. 1201, a 17-year-old switcher, whose worn-out engine had become obsolete by modern standards. She was beyond economical repair. But diesel doctors, under the direction of Earl L. Walston, general superintendent of motive power, gave her the "concrete treatment."

They removed the 600 hp. diesel engine, generator, and accessory equipment, and even the cab. Then, inside, they cast a block of concrete to compensate for loss of weight. But they left intact the electric traction motors geared to each axle, after making certain electrical changes.

The result is a unit that has no engine and uses no fuel. The key to her operation is specialized use as a "booster" coupled to a normal diesel engine, receiving electric power for her traction motors from the generator of the normal diesel locomotive to which she is coupled.

"This booster engine," Mr. Walston explains "provides the traction of a second unit in moving freight trains at a fraction of the operating cost of normal diesel locomotives heretofore used for such purposes, and releases regular locomotives from such limited service for more profitable use elsewhere on the railroad."

By itself, the transformed unit is helpless. She comes to life when connected to a regular diesel locomotive. ●

NEWS IN BRIEF. The famous *Nellie Bly* is still running between New York and Atlantic City, reports Granville Thomas, Millville, N. J., but the Pennsy contends she is losing money and wants to discontinue her. This is one of the very few trains named for women.

A 200-ton, three-section, steel bridge —completely prefabricated, even to rails and ballast—has just been rolled into place on the Long Island's Port Washington branch between Great Neck and Manhasset, N.Y. The new 230-foot span replaces a tunnel-like bridge.

For its 24th consecutive year, *Chessie* is featured on the Chesapeake & Ohio's

Anatone gives healthful support while it slims!

Supports sagging stomach muscles. Helps you get blessed relief from nagging backache. Slims inches off your waist. The scientifically-developed ANATONE BELT now helping thousands of men in all walks of life. Made of elasticized fabric with reinforced stitching, special stays to prevent wrinkling and rolling. No crotch piece. Feel and look younger . . . results guaranteed or purchase price back. **Waist sizes 26" thru 52"**

Unconditional Money-Back Guarantee

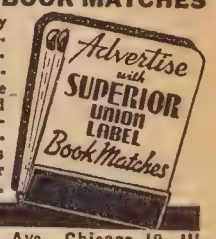
$4.98

10 day free trial ...send no money

MAGIC-MOLD Inc., A28C
467 Livonia Ave., B'klyn 7, N. Y.
Rush me on 10 days' FREE TRIAL an ANATONE BELT. I will pay postman $4.98 (plus postage). If not completely satisfied, I may return the ANATONE for full refund of purchase price.
My waist measure is.....inches
Name .....
Address .....
City..... Zone..... State.....
☐ **Save money.** Enclose money now and we pay postage. Same money-back guarantee. (Canadian and Foreign orders. Prepaid only. Add 50c extra.)

MAKE EXTRA MONEY
EVERY BUSINESS EVERYWHERE USES UNION LABEL BOOK MATCHES

No experience needed to earn big daily commissions. Be a direct factory representative of the world's largest exclusive UNION LABEL Book Match manufacturer. Prospects everywhere. Feature Glamour Girls, Hillbillies, scenics and dozens of other styles—Double Books—Jumbo Books—nearly 100 color combinations. New, bigger portfolio makes this fastest selling line a real profit maker for you. Write TODAY for full details.



SUPERIOR MATCH CO.
Dept. L-357, 7528 S. Greenwood Ave., Chicago 19, Ill.

Get into.. PLASTIC LAMINATING AT HOME!

Make $20 to $30 a Day by.. MAGIC MAIL PLAN!

Get ORDERS and CASH from your mailman—do work in SPARE TIME at home —or expand into FULL TIME business.

Send coupon for Free facts about the newest and most fascinating of all home operated businesses. For the first time a simplified machine brings the fabulous profits of Plastic Sealing and Plastic Laminating within the reach of the small operator. Anyone can learn to operate the machine with a few minutes practice —then with our Magic Mail Plan can get mail orders pouring in daily with cash in every envelope. No canvassing—no selling. We even supply the circulars you mail to bring back cash and orders. Don't waste a minute. Rush your name. We'll send you FREE and postpaid pictures, prices, details, and all the facts you need to start. Mail coupon or send name on postcard. No charge.

WARNER ELECTRIC CO.
1512 Jarvis Av., Dept. L-92-C, Chicago 26, Ill.

THIS MAN . . .
. . . is taking out of the machine a Plastic Sealing Job — ordered by mail—only 11c in material cost brings back $2.58 in cash by mail. Capacity of machine: $25.00 profit per hour of operation.

Make Thousands of Beautiful Art Creations
COSTUME JEWELRY • CIGARETTE BOXES
TRAYS • CANDLESTICKS • COASTERS
LAMP BASES • BOOK ENDS...ALL IN SPARKLING COLORED PLASTIC

WARNER ELECTRIC CO., 1512 Jarvis Av.
Dept. L-92-C, Chicago 26, Ill.
At no cost to me, please rush complete details postage prepaid. I am under no obligation.
Name.....
Address.....
City.....Zone.....State.....

YOURS—THE YEAR'S MOST EXCITING STAMPS!

Grace Kelly - Rainier Royal Wedding; Monaco U. S. President Set—F.D.R., Lincoln, Washington, Eisenhower.

plus an imported collection of
310 STAMPS
all yours for only 25¢

You also get Bulgaria Complete Motor Show; St. Thomas Explorer; San Marino Airmail Triangle; Dutch New Guinea 1st Stamp Issued and hundreds more! Grand total of 315 all-different stamps. Catalog value $6.95—yours for 25¢ to introduce our Bargain Approvals. Included FREE, Midget Encyclopedia of Stamps.

Send 25¢ Today. ASK FOR LOT HK-10
ZENITH CO., 81 Willoughby St., Brooklyn 1, N. Y.

"How to Make Money with Simple Cartoons"

A book everyone who likes to draw should have. It is free; no obligation. Simply address FREE BOOK
CARTOONISTS' EXCHANGE
Dept. 983 Pleasant Hill, Ohio

INVENTORS

Learn how to protect your invention. "Patent Guide" containing information on patent protection and procedure with "Record of Invention" form will be forwarded to you upon request—without obligation.
CLARENCE A. O'BRIEN & HARVEY JACOBSON
Registered Patent Attorneys
726-B District National Building
Washington 5, D. C.

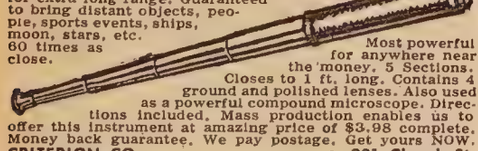
REAL ESTATE
BE A BROKER

PAYS BIG! SEND FOR FREE, BIG, ILLUSTRATED CATALOG NOW! Graduates report making substantial incomes. Start and run your own business quickly. Men, women of all ages, learn easily. Course covers Sales, Property Management, Appraising, Loans, Mortgages, and related subjects. STUDY AT HOME or in classrooms in leading cities. Diploma awarded. Write TODAY for free book! No obligation. Approved for World War II and Korean Veterans
FREE BOOK TELLS HOW
WEAVER SCHOOL OF REAL ESTATE (Est. 1936)
2022V Grand Kansas City 8, Mo.

BRAND NEW BLUE-STEEL

.22 cal. Blank Cartridge German AUTOMATIC, Clipload 6 shot Repeater
NO PERMIT REQUIRED
Latest model, not a clearance item. Gun is fully automatic, has positive safety catch, self ejecting clip. Adjustable firing spring. Machined with all the care and precision of West Germany's finest gunsmiths. Ideal for sporting events, theatrical performances, etc., 4" long, perfectly balanced. Satisfaction guaranteed. Send check or money order and save C.O.D. charges.
$7.95 postpaid
BIG THREE Inc. Dept. AG-3
1109 Sixth Ave., New York 36, N. Y.

60 POWER TELESCOPE $3.98
VARIABLE EYEPIECE 20X — 40X — 60X — BRASS BOUND
NEW! Three telescopes in one, 3 different magnifications, 20 power for ultra-bright images with 40 and 60 power for extra long range. Guaranteed to bring distant objects, people, sports events, ships, moon, stars, etc. 60 times as close.



Most powerful for anywhere near the money. 5 Sections. Closes to 1 ft. long. Contains 4 ground and polished lenses. Also used as a powerful compound microscope. Directions included. Mass production enables us to offer this instrument at amazing price of $3.98 complete. Money back guarantee. We pay postage. Get yours NOW.
CRITERION CO. 331 Church St.
Dept. EAB-26 Hartford 1, Conn.

High School Course at Home
Many Finish in 2 Years

If you did not or cannot finish high school, here is your opportunity. Study in spare time at home. Go as rapidly as your time and abilities permit. Course equivalent to residential school—prepares for college exams. Standard texts supplied. Credit for subjects already completed. Single subjects if desired. Diploma awarded. Be a High School graduate. Start studies now. Free Bulletin. Write today.
AMERICAN SCHOOL, Dept. H339
Drexel at 58th, Chicago 37, Illinois

1957 calendar. This time the famous kitten is shown against a background of model railroading.

Lightning struck a large factory in Paris, Ont., sending flames 100 feet skyward. Fire-fighters were hampered by low water-pressure, but Canadian National agent Clark Mowat instructed a freight crew to spot their locomotive, No. 518, at the junction standpipe and relay water to the hard-pressed "smoke-eaters." Later, one of the local firemen said: "If the train hadn't come along when it did, that whole half-million-dollar plant would be a goner."

Another CNR locomotive in Ontario (number not stated) came to the rescue of Canadian Army Captain Seville, when he lost a ball while playing golf alongside the track near Camp Borden. The engineer stopped his train, blasted his whistle to attract the golfer's attention, and pointed to the missing ball. "Ordinarily, such a thing doesn't happen once in a lifetime," comments G. W. Horner, Scarborough, Ont., Canada.

The Santa Fe Magazine, oldest railway employes' magazine in the Midwest and second oldest in the nation, celebrated its 50th birthday last December, three months after *Railroad Magazine's* golden anniversary.

Railfan church? Buffalo Catholic Diocese's *Official Directory* lists parish boundaries for St. Monica's as follows: Buffalo Creek, Pennsylvania RR., and Nickel Plate RR., says W. C. Kessel.

An analysis of reader interest in *Green Light,* the D&RGW employes' magazine, shows that its popularity ranks highest with railroad pensioners, second highest with train, engine, and yard employes, and lowest in the general offices.

The top caption in our February issue, page 23, bulled up the name of old Chicago, Milwaukee & St. Paul RR. Many readers are gleefully calling our attention to it. ●

KELSO'S article on "Eight-wheelers" is drawing such favorable comment that we have given H.L.K. the green light on a "Ten-wheelers" feature for our next issue. It seems that 4-6-0's are ex-fireman Kelso's special pets—he's been collecting stories about them for years—so his June piece should ring a lot of bells.

Dave Joslyn tells us how much he enjoyed the February feature. Dave is a retired Southern Pacific boilermaker and locomotive draftsman, living at 2164 Castro Way, Sacramento, Calif.

"Many years have fled since the SP scrapped its last 4-4-0," he sighs. "Only those of us who have seen a gay little Eight-wheeler breezing along at 40 miles per hour with three wooden passenger cars tied to her tail can appreciate what a grand sight it was.

"I worked on those engines as a boilermaker. It was no snap to crawl into the boiler on the crownsheet and unbolt or rebolt the crownstays or rivet them in place, as the case might be. And in the front end, that smokebox might have been bigger but you could have curled up in there while rolling the flues or installing new ones.

"I'll never forget the graceful Cooke 4-6-0's that wheeled the SP's *Overland Limited.* From the long sweeping pilot to the tender they were beauties. Two or three such girls, with brasswork highly polished, would snake the *Overland* through the tall Sierras. One of them, trimmed with flags and bunting and preceded by a pilot engine, also dressed up, pulled President McKinley's trian over the SP in 1900." ●

JOSSERAND'S "Train-Sheet Blues" (Oct. issue) drew fire from John L. McGregor. 5201 Sherbrooke St. W., Montreal, Canada, as follows: "I quote from paragraph two of your article: 'Being superior by direction, the northbound *Sunshine Limited* was controlled by the order to hold the main track.' Shame on you, Mr. Josserand! According to my Canadian National employes' timecard, south and east are superior, west and north inferior. Are you right and our timecards wrong?"

The answer to the first half of that questions is *yes,* and to the second half, *no.* Peter Josserand (233 41st St., Sacramento, Calif.) is a Western Pacific train dispatcher. He quotes Rule S-71 of the AAR *Standard Code*: "A train is superior to another by right, class, or direction. Right is conferred by train orders; class and direction by timecards. Right is superior to class or direction. Direction is superior as between trains of the same class."

Says Pete: "Each railroad selects the directions it wishes to use for the purpose of defining 'superior direction. For instance, on the Missouri Pacific, while I was dispatching there, trains ran north and south, and those moving north were superior by direction, with

a few stated exceptions. Some roads run trains east and west. In Eastern U.S.A. eastward trains are superior to those of the same class moving in the opposite direction. Out West here, the reverse is true, westward trains being superior to eastward.

"I have a 1930 timetable of the I-GN which reads: 'All northward trains are superior to trains of the same class in the opposite direction, except: Trinity District, No. 21 is superior to all trains except No. 22.' So you see that the railroads can do just about anything they please in establishing superiority by direction. No. 22, the northbound *Sunshine Limited,* was superior to No. 21, just as I said in the first place."

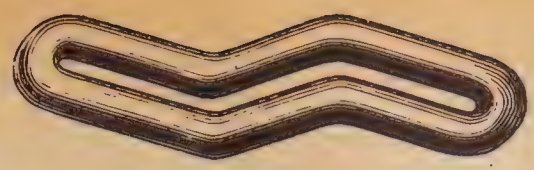
Such cases make us reluctant to print "corrections." Too many so-called corrections, when challenged, turn out to be readers' mistakes based upon their own limited experience. ●

1880 IS as far back as W. K. Yeatman can remember. Mr. Yeatman lives at 5809 Avenue N, Central Park, Birmingham, Ala. But 57 years ago, his home was in Selma, Ala., and it faced the Selma, Rome & Dalton, a 5-foot-gage line 238 miles long.

"The road had 12 engines," he recalls, "all 4-4-0 woodburners, and all the streams it crossed were spanned by covered wooden bridges. When I became 17 I went railroading. By that time the expanding East Tennessee, Virginia & Georgia had taken over the SR&D. The big road scrapped all the woodburners and hauled its freight with coal-burning Moguls and its passengers with Eight-wheelers.

"I wanted to go firing, but the master mechanic said: 'Sonny, you are too light to fire coalburners. It's a man's job.' He sent me to the trainmaster for a flagging job.

"In those days the link and pin was in common use. Only cars that went to the shops for repairs were given modern couplers. The knuckles of the new couplers were made with a slot in the end for a link, and a hole through the top for a pin. These openings weakened them so much that many knuckles snapped, often breaking the trains in two. In coupling to a drawhead, the link had to be inserted in the knuckle first. Guiding it in was a hazardous method that crushed hands and fingers. The company issued coupling sticks to all brakemen and switchmen, but some men thought it was sissy



Crooked type of coupling link.

to use them. One conductor, F. Seale, lost his left arm at the elbow because he failed to use a coupling stick, and ran a passenger train with an artificial hand and arm until his retirement.

"Our caboose carried a large stock of links and pins. This was necessary, for we often had to switch a string of cars from which the pins had been stolen. Brakemen who needed pins would rob the nearest cars rather than walk back to the caboose for a legitimate supply. Some types of links were double-bent so that they could be turned upward or downward to fit snugly. One day a young rookie trainmaster, riding with us, noticed a few double-bent links in our locker and told the skipper: 'Russell, turn in these bent links, and the blacksmith shop can straighten them out.' You should have heard the crew roar with luaghter. ●

Next Issue—June

"Ten-wheelers," a lively and informative article by H. L. Kelso.

Complete renumbering of Canadian National locomotives, steam and diesel.

"Anything's Liable to Happen" (fiction), Harry Bedwell at his best.

Plus other articles, true tales, short hauls, your favorite departments, a color-photo cover, and plenty of good pix. Out April 2.

WHAT DO YOU WANT?

• A Better Job?
• Your Own Business?
• Big Sparetime Earnings?

They're All Waiting for YOU in CUSTOM UPHOLSTERY

With upholstery booming you can do what Paul de Vita and hundreds of UTS graduates of all ages have done. Well-paid jobs for expert upholsterers are everywhere. Or you can be your own boss, making good money working at home, or in your own shop.

Best Of All You Can Earn While You Learn!

Now the practical N. Y. State-approved UTS course is available to you at home. You learn professional custom furniture upholstery, re-upholstery, slipcovers, furniture finishing, repairs, window cornice, cushion and drapery making. Course includes FREE—all tools, complete frames, materials and fabrics to make beautiful furniture and slip covers—yours to keep or sell! Many UTS students earn enough in spare time to get CAPITAL for their own shops. What they did, YOU CAN DO!

Paul de Vita, former Auto Mechanic, says: "Doubled my income—Thanks to UTS."

Big Free Book — Free Sample Lesson

Our FREE book, "Your New Way to A Successful Career," with sample lesson shows you how you can earn as you learn. Tells how you prepare at home for this fascinating well-paid big opportunity trade. Write Today! Training in N. Y. School also available.

UPHOLSTERY TRADES SCHOOL
Dept. FD-2804, 721 Broadway
N. Y. 3, N. Y.

APPROVED FOR VETERANS

UPHOLSTERY TRADES SCHOOL
Dept. FD-2804, 721 Broadway
N. Y. 3, N. Y.

Please send me FREE book with FREE sample lesson. No obligation. No salesman will call.
☐ Home Study ☐ N. Y. School
Name.....
Address.....
City.....Zone...State....
☐ Check here if Korean Veteran

HOW TO PERFORM STRONG MAN STUNTS

Make a hit!!! Tear a deck of cards in half . . . lift amazing weights with only a finger and other unusual tricks. Complete with illustrations.

FREE! If you act now with each order you'll receive the 128-page illustrated book "Health is Fun." Teaches self confidence, the key to success.

BOTH Only $1.00

Send check, cash or money order. Sorry no C.O.D.

ALADDIN BOOK CO., Dept. AD
210 Fifth Ave., New York 10, N. Y.

New PROFIT-PROVEN* Home-Business!

"I make $400.00 a week!"

*Proves MR. J. T. ANDERSON, Inglewood, Calif. (Notorized statement on file in our office and open to inspection)

SCREEN PRINT

Screen-Print Co., Dept. 503 —,
15127 S. Broadway, L.A. 61, Calif.

Gentlemen: Please mail me Free Revealing Details, samples, Opportunity Plan, etc.—All this is sent absolutely Free and sent to me by return mail. I am under no obligation now or ever.

NAME.....
ADDRESS.....
CITY.....ZONE....STATE.....

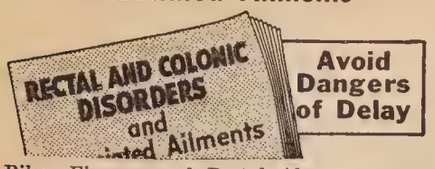
free! Complete REVEALING DETAILS, Authentic SAMPLES, Proven Big Money OPPORTUNITY PLAN, HOW-TO BOOKLET. Learn the secrets. Rush this coupon TODAY!

READ WHAT OTHERS ARE SAYING—Investigate! "Would not take $1000.00 for secret...just what I have been searching the world over for," C.S., Nev. "Making 75% of living expenses already in spare time," E.L., Ontario; "Made $80 first week—terrific opportunity"—W.S., Iowa. Mail Coupon and Learn Secrets Too!

Big Money?—sure it is—because Huge Profits are waiting to be "tapped" with this **MIRACLE NEW PRINTING METHOD.** Now, you may share the exciting secrets and build a big-paying **FULL OR SPARE TIME** Screen Printing Business right **IN YOUR OWN HOME.** Yes, we'll teach you, too, how to turn pennies into dollars in this newest, most sensational printing method ever invented. **WHAT IS SCREEN-PRINT?** It's an exciting new printing technique—amazingly simple and fascinating. (It may soon revolutionize the entire printing industry) **NO EXPENSIVE EQUIPMENT,** no printing press, no "cuts," no art ability, no experience is necessary—yet you can print beautiful professional jobs on **PAPER, GLASS, LEATHER, CLOTH—ANYTHING!** You print in all colors—even new "glowing" **FLUORESCENT COLORS.** It's amazing—but true! **EARN PROFITS IMMEDIATELY—IN YOUR OWN HOME!** Start in your garage, basement, kitchen, spare room—anywhere! It's much easier than you think. Then expand as this new printing industry grows. **300% PROFIT** on some jobs—earn up to $12.50 per hr. **HELP FILL THE HUGE GROWING DEMAND.** No selling because every business in your area needs Screen-Printing. You can save them up to 50% on printing, too. **WE SUPPLY EVERYTHING YOU NEED.** Never before has such a profitunity been offered to anyone wishing to start a full-time or spare-time "business of his own." Don't Hesitate! All the **CONFIDENTIAL FACTS** are yours if you **MAIL COUPON TODAY**—before it's too late.

FISTULA

FREE BOOK — Explains Danger of Associated Ailments



Piles, Fissures and Rectal Abscess are common ailments that may also be associated with neglected Fistula. Our new 130-page illustrated book sent FREE. Write—McCleary Clinic & Hospital, 349 Elms Blvd., Excelsior Springs 2, Mo.

FINISH HIGH SCHOOL AT HOME!

No classes to attend. Easy spare-time training covers big choice of subjects. Friendly instructors; standard texts. Full credit for previous schooling. Diploma awarded. Write now for FREE catalog!

WAYNE SCHOOL Catalog HC16
2527 Sheffield Ave., Chicago 14, Illinois

GOVERNMENT 40 ACRE

OIL LEASE $100.

Act of Congress gives citizens equal rights with Oil Co's. to obtain Govt. leases. You do no drilling, yet may share in fortunes made from oil on public lands. (Payments if desired) Licensed & Bonded Oil Brokers. Free Information & Maps of booming areas. Write: **NORTH AMERICAN OIL SURVEYS**
8272-Q SUNSET BLVD., LOS ANGELES 46, CALIF.

MAKE YOUR FORTUNE

Sell famous Spring-Step Cushion Shoes. Earn up to $25.00 daily plus Cash Bonus and Retirement Income with amazing 2-minute demonstration that sells on sight. Big repeat business. Full or spare time. America's Biggest Selection of Shoes for all the family. Free outfit given. No investment ever. Write today.

ORTHO-VENT SHOE CO., Inc., 5373 College Ave., Salem, Va.

HYPNOTISM

Be Popular Amaze Entertain

Learn to apply Hypnotism and Autosuggestion in short time by training at home, with GUARANTEED RESULTS—DON'T DELAY. Write to America's oldest, most famous Hypnotic school for free information—now—today. Sent in plain wrapper.

SCHOOL OF APPLIED HYPNOLOGY
Dept. 574 120 Central Park South, N.Y. 19, N.Y.

EPILEPSY!

Learn about treatment for epileptic spells! Write today for free information.

Lakewood Neurophen Co., Station A.
Dept. MG-3, Cleveland 2, Ohio

RR COLOR SLIDES

Steam, Diesel, Electric. Old-timers and Modern. UP, SP, CN, NYC, PRR, NKP, B&M, CB&O, V&T, CP, B&O, READING, PICKENS, GLENBROOK, etc.
Also, Color Slides of Trolley Street Cars, Stage Coaches, Antique Automobiles, Circus Wagons, etc.
Write today for FREE Illustrated Catalog.
UNIVERSAL SLIDE CO.
Box 779G **Beverly Hills, Calif.**

PROFESSIONAL TYPE

BADGES $2.98 PPD.

Individual Orders Filled $2.98 ppd.

FREE Leather Badge Holder with each order

These gleaming non-tarnish badges are finely crafted of massive metal. Will absolutely command respect wherever you go.

Your Choice: Special Officer, Private Detective, Sheriff, Deputy Sheriff, Constable, Deputy Constable

10 DAY MONEY BACK GUARANTEE

FORD'S Dept.205 P.O. Box 27 Cooper Sta., New York, N. Y.

From collection of S. R. Wood, 115 W. Maple St., Stillwater, Okla.

Tall-stacked One-spot of Kansas City, Pittsburg & Gulf later became KCS No. 107.

All-time Steam Roster of the KANSAS CITY SOUTHERN

THIS roster of all steam locomotives of the Kansas City Southern and its former or affiliate roads was compiled by Harold K. Vollrath, Louisiana & Arkansas train dispatcher. Some specifications of early engines are lacking.

ARKANSAS WESTERN

No. 1, 2-8-0, built by Taunton in 1893 and scrapped in 1912, had 51-inch drivers, 20x24-inch cylinders, total weight 141,180 pounds, weight on drivers 91,720, boiler pressure 140, and tractive effort 22,400.

No. 2, 4-4-0, was originally Poteau Valley No. 2. She had 63-inch drivers, 17x24-inch cylinders, 77,000 pounds total weight, and 13,000 pounds tractive effort, and was sold to CNC&W in 1908.

KANSAS CITY & INDEPENDENCE AIR LINE

Nos. 101, 102, 103, all 2-4-4T, built by Baldwin in 1892, had 56-inch drivers and 13x22-inch cylinders. No. 101 went to J. H. Taylor in 1902, No. 102 to Long Bell Lbr. in 1901, and No. 103 to F. M. Hicks in 1900.

TEXARKANA & FORT SMITH

No. 5, Class B, 4-4-0, was built by Baldwin in 1893 and scrapped in 1910. She had 63-inch drivers, 17x24-inch cylinders, total weight 77,000 pounds, weight on drivers 50,000, boiler pressure 155, and tractive effort 13,100.

KANSAS CITY SOUTHERN

0-6-0 Switchers

Baldwin built all of this type except Nos. 70-73, Schenectady and Nos. 93-100, Pittsburg.

Class F: 51-inch drivers, 18x24 cylinders, weight 92,000, boiler pressure 155, and tractive effort 20,736. Nos. 51 and 52 were KCSB. Nos. 53, 55, 57, 58 were Union Terminal (KC).

Nos.	Built	Disposal
51	1891	Scrapped 1915
52	1891	Sold Union Traction 1915
53	1892	Sold Loring & Western 1906
54	1892	Sold Dishomingo Gvl. 1917
55	1892	Sold Security Iron KC 1918
57	1894	Scrapped 1912
58	1895	Scrapped 1924

Class F-1: 51-inch drivers, 19x24 cylinders, weight 109,000, boiler pressure 165, and tractive effort 23,826. All were KCSB. No. 59 was later TFS.

59	1897	Scrapped 1924
60	1897	Sold List & Gifford 1924
61	1897	Sold Beck & Babb 1924
62	1897	Sold Beck & Babb 1924
63	1898	Sold List Constr. 1925
64	1898	Sold Beck & Babb 1924
65	1899	To 2-6-0 C-1 in 1917
66	1899	Sold List & Gifford 1924

Class F-3: 50-inch drivers, 20x28 cylinders, weight 157,500, boiler pressure 180, and t. e. 34,300.

70	1913	Scrapped 1949
71	1913	Scrapped 1948
72	1913	Scrapped 1949
73	1913	Scrapped 1948

Class F-2: 51-inch drivers, 19x26 cylinders, weight 129,900, boiler pressure 180, and tractive effort 28,158. Nos. 82 and 99 had Bethlehem tank boosters applied in 1925, removed by 1932. No. 85 in 1932 was 2-6-0, Class C-2.

81	1907	Scrapped 1947
82	1907	Scrapped 1950
83	1907	Scrapped 1939
84	1907	Scrapped 1932
85	1907	Scrapped 1948
86	1908	Scrapped 1940
87	1908	Scrapped 1932
88	1908	Scrapped 1940
89	1908	Scrapped 1932
90	1901	Scrapped 1932
91	1901	Scrapped 1932
92	1901	Scrapped 1929
93	1905	Sold Prod. Sand & Gvl. 1935
94	1905	Scrapped 1933
95	1905	Sold Port Iron Supply 1950
96	1905	Sold Prod. Sand & Gvl. 1930
97	1905	Sold List Constr. 1931
98	1905	Scrapped 1933
99	1905	Scrapped 1950
100	1905	Sold List Constr. 1931

2-4-4T Type

No. 56, Class A, a Vauclain Compound, was built by Baldwin in 1893 and sold to Security Iron in 1918. She had 52-inch drivers, 10x17x24 cylinders, total weight 70,000, weight on drivers 58,000, boiler pressure 160, and tractive effort 14,201. No. 56 was Union Terminal (KC).

4-4-0 Type

Nos. 101-110, 130, 131 were built by Baldwin, No. 132 by Brooks, Nos. 140-143 by Schenectady, and Nos. 170-173 by Manchester.

Class B: Nos. 130, 131 were originally KCN&FS Nos. 3, 4, then KCP&G Nos. 111, 112. They had 63-inch drivers, 17x24 cylinders, weight 79,000, weight on drivers 50,000, boiler pressure 160, tractive effort 13,301. No. 130 was scrapped in 1910, No. 131 in 1911.

Class B-1: 63-inch drivers, 17x24 cylinders, weight 87,000, weight on drivers 56,000, boiler pressure 160, and tractive effort 16,377. These were KCP&G. The earlier numbering is in parentheses.

Nos.	Built	Disposal
101 (101)	1897	Scrapped 1911
102 (102)	1897	Sold Mansfield Ry. Trans. 1910
103 (103)	1897	Scrapped 1911
104 (104)	1897	Scrapped 1913
105 (105)	1897	Scrapped 1911
106 (106)	1897	Scrapped 1911
107 (1)	1895	Scrapped 1915
108 (2)	1895	Sold Mansfield Ry. Trans. 1910
109 (3)	1895	Scrapped 1911
110 (4)	1895	Scrapped 1911

Class B-2: This was No. 132, originally KCF&S No. 2, then KCP&G 10. She had 62-inch drivers, 17x24 cylinders, total weight 79,000, weight on drivers 52,000, boiler pressure 160, tractive effort 13,301. She was scrapped in 1910.

Class B-3: 60-inch drivers, 18x24 cylinders (No. 140 had 17x24 cylinders), weight 107,500, weight on drivers 67,500, boiler pressure 160, tractive effort 17,626 (No. 140 tractive effort 15,000). All were KCP&G.

140	1893	Scrapped 1939
141	1893	Scrapped 1914
142	1895	Sold Jarrett Constr. 1907
143	1895	Scrapped 1939

Class B-4: 69-inch drivers, 18x24 cylinders, weight 113,000, weight on drivers 75,000, boiler pressure 180, tractive effort 17,242. All KCP&G.

170	1897	Scrapped 1923
171	1897	Scrapped 1923
172	1897	Scrapped 1923
173	1897	Scrapped 1923

2-10-2 Type

Brooks built Nos. 200-205. Baldwin built Nos. 220-223. All were WAB, purchased in 1942. Nos. 220-223 had been AA.

Class L: 64-inch drivers, 27x32 cylinders, weight 395,099, weight on drivers 316,800, boiler pressure 210, tractive effort 75,059.

200	1917	Scrapped 1951
201	1917	Scrapped 1952
202	1917	Scrapped 1953
203	1917	Scrapped 1951
204	1917	Scrapped 1951
205	1917	Scrapped 1952

Class L-1: 57-inch drivers, 27x32 cylinders, weight 357,900, weight on drivers 274,800, boiler pressure 200, tractive effort 68,377.

220	1919	Scrapped 1951
221	1919	Scrapped 1951
222	1919	Scrapped 1952
223	1919	Scrapped 1951

2-6-0 Type

All the 2-6-0 types, including those converted from other types, were built by Baldwin. Nos. 240 and 241 were KCN&FS Nos. 1 and 2, then KCP&G Nos. 27 and 28. Nos. 300-305 were KCP&G Nos. 21-26.

Class C: 55-inch drivers, 18x24 cylinders, weight 96,000, weight on drivers 80,000, boiler pressure 160, tractive effort 17,401. No. 240, built in 1892, was scrapped in 1911. No. 241, also built in 1892, was sold to C. J. Cohen Co., K.C., in 1911.

Class C-1: 55-inch drivers, 19x24 cylinders, weight 115,000, weight on drivers 100,000, boiler pressure 165, tractive effort 22,763.

300	1895	Scrapped 1912
301	1895	Scrapped 1913
302	1895	Scrapped 1911
303	1895	Scrapped 1912
304	1895	Scrapped 1912
305	1895	Scrapped 1912

No. 65, rebuilt from the old 0-6-0 switcher No. 65, in 1917, had 51-inch drivers, 19x24 cylinders, weight 116,000, weight on drivers 103,000, boiler pressure 175, tractive effort 25,270. She was sold to List Construction Co. in 1925.

Class C-2: 51-inch drivers, 19x26 cylinders, weight 139,000, weight on drivers 121,650, boiler pressure 180, tractive effort 28,158. No. 85 was rebuilt in 1932 from the 0-6-0 switcher No. 85, and scrapped in 1948.

4-6-0 Type

Baldwin built Nos. 270-273, 320-333, 350-380, 600-606. Manchester built Nos. 250-257. Schenectady built Nos. 334-337. Brooks built No. 274. Grant built Nos. 400-411. All were KCP&G except for Nos. 334-337,, which were C&A Nos. 235-238, and Nos. 600-606.

Class D: 63-inch drivers, 18x24 cylinders, weight 104,000, weight on drivers 80,000, boiler pressure 160, tractive effort 17,835.

Nos.	Built	Disposal
250	1897	Scrapped 1911
251	1897	Scrapped 1911
252	1897	Sold Frost Johnson Lbr. 1914
253	1897	Scrapped 1911
254	1897	Scrapped 1911
255	1897	Scrapped 1911
256	1897	Scrapped 1911
257	1897	Scrapped 1911

Class D-1: 55-inch drivers, 18x24 cylinders, weight 99,000, weight on drivers 76,000, boiler pressure 180, tractive effort 18,026.

270	1893	Scrapped 1911
271	1893	Scrapped 1911
272	1893	Scrapped 1912
273	1893	Scrapped 1911

Class D-2. 57-inch drivers, 18x24 cylinders, weight 102,000, weight on drivers 78,000, boiler pressure 160, tractive effort 17,394. No. 274 was built in 1889 and scrapped in 1911.

Class D-3: 55-inch drivers, 19x24 cylinders, weight 123,000, weight on drivers 95,000, boiler pressure 170, tractive effort 22,763.

320	1896	Sold Memphis Paris & Gulf 1906
321	1896	Sold Central Coal & Coke 1913
322	1896	Sold J. Smith Constr. 1910
323	1896	Sold J. Smith Constr. 1910
324	1896	Sold J. Smith Constr. 1909
325	1896	Sold Tremont Lbr. 1914
326	1896	Sold La. Sand & Gvl. 1913
327	1896	Lost in fire Hornbeck, La., 1908
328	1896	Sold MP&G 1906
329	1896	Sold N.O.N.E. Mills 1913
330	1897	Scrapped 1912
331	1897	Sold E&W 1916
332	1897	Sold M. S. Cohen Gvl. 1924
333	1897	Sold J. Smith Constr. 1909

Class D-4: 64-inch drivers, 19x26 cylinders, weight 124,000, weight on drivers 96,000, boiler pressure 180, tractive effort 27,756. Purchased from C&A in 1905.

334	1893	Scrapped 1919
335	1893	Scrapped 1919
336	1893	Scrapped 1919
337	1893	Scrapped 1919

Class D-5: 55-inch drivers, 20x26 cylinders, weight 141,400, weight on drivers 112,500, boiler pressure 180, tractive effort 29,338.

350	1898	Scrapped 1925
351	1898	Sold Mansfield Lbr. 1926
352	1898	Scrapped 1925
353	1898	Sold 1925
354	1898	Scrapped 1937
355	1898	Sold MO&G 1916
356	1898	Scrapped 1937
357	1898	Scrapped 1933
358	1898	Sold MO&G 1916
359	1898	Scrapped 1937
360	1898	Sold Parker Gvl. 1932
361	1898	Scrapped 1940
362	1898	Scrapped 1925
363	1898	Scrapped 1925
364	1898	Scrapped 1925
365	1898	Scrapped 1927
366	1898	Scrapped 1927
367	1898	Scrapped 1925
368	1898	Scrapped 1937
369	1898	Scrapped 1925
370	1898	Scrapped 1925
371	1898	Scrapped 1933
372	1898	Scrapped 1925
373	1898	Scrapped 1933
374	1898	Scrapped 1926
375	1898	Scrapped 1925
376	1898	Sold Parker Gvl. 1932
377	1898	Sold La. Gvl. 1925
378	1898	Scrapped 1939
379	1898	Scrapped 1933
380	1898	Scrapped 1926

Class D-6: 63-inch drivers, 19x24 cylinders, weight 128,300, weight on drivers 94,700, boiler pressure 170, tractive effort 19,872.

400	1897	Scrapped 1927
401	1897	Scrapped 1911
402	1897	Scrapped 1911

Let champions add solid new muscle . . . broaden your shoulders . . . put hammer-like force in your hands.

Are you skinny, scrawny? Ted Kluszewski's surefire method will add pounds and pounds of hard, solid muscle. Always being picked on? Kid Gavilan's tested plan will help make you a champ. Want powerful shoulders, arms, biceps? Football star, Doak Walker has a proven body-builder that brings results . . . FAST! Want to be a star athlete or look like one? It's simple. It's easy. Just 15 minutes of FUN a day at home. Find out how 21 champions can help YOU! Mail the coupon below RIGHT NOW!

Sincerely, Joe Louis

Only 10c brings Joe Louis' book, "FIGHT SECRETS" and FREE facts about how National Sports Council can help you.

ACT NOW

21 CHAMPIONS Give You Strength, Confidence, New Popularity!

BOB COUSY shows how to develop stamina.

YOGI BERRA builds confidence with Manly Art Test . . . IT'S FUN!

PAUL GIEL gives his body coordination secrets.

ONLY 10c

Joe Louis, c/o National Sports Council, Dept. AH-17
33 West 46th Street, New York 36, N. Y.

Dear Joe:
( ) Enclosed is 10c. Please send me your famous book, "FIGHT SECRETS" and a FREE full complete explanation of how the National Sports Council can build me the right kind of body.

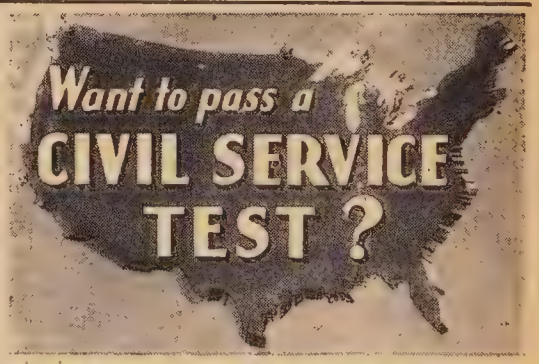
Name.....
Address.....
City .....Zone ....State .....
☐ Check here for special booklet if under 15.

MAIL COUPON TODAY

INVENTORS

If you believe that you have an invention, you should find out how to protect it. We are registered Patent Attorneys. Send for copy of our Patent Booklet "How to Protect Your Invention," and an "Invention Record" form. No obligation. They are yours for the asking.

McMORROW, BERMAN & DAVIDSON
Registered Patent Attorneys
150-T Victor Building Washington 1, D. C.



START AS HIGH AS $4,080.00 A YEAR!

Prepare NOW for Next Examinations

MEN — WOMEN

- Postoffice Clerks-Carriers
- Railway Postal Clerks
- Stenographers
- Accountants
- Typists
- Meat Inspectors
- Many Other Early Jobs

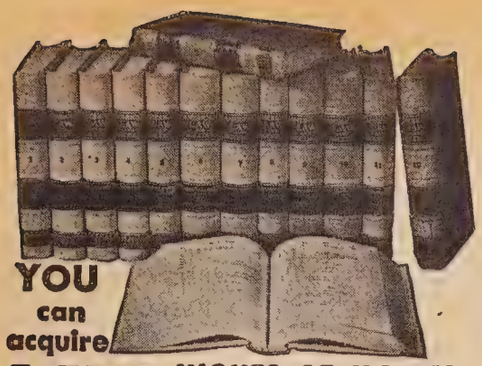
MAIL COUPON TODAY SURE

COUPON

FRANKLIN INSTITUTE
(Not Government Connected)
Dept. D-102
Rochester 4, N. Y.

Sirs: Rush to me, FREE of charge, list of many U. S. Civil Service big pay jobs. Send FREE 36-page illustrated booklet describing salaries, vacations, benefits, work, etc. Tell me how to prepare for one of these tests.

Name.....
Street.....
City ..... Age?.....



YOU can acquire

LAW NIGHTS AT HOME! L.L.B. DEGREE

Legally trained men win higher positions and bigger success in business and public life. Greater opportunities now than ever before.

More Ability: More Prestige: More Money We guide you step by step. You can train at home during spare time. Degree of LL.B. We furnish all text material, including 14-volume Law Library. Low cost, easy terms. Get our valuable 48-page "Law Training for Leadership" and "Evidence" books FREE. Send NOW.

LASALLE EXTENSION UNIVERSITY, 417 South Dearborn Street
A Correspondence Institution Dept. 359-L Chicago 5, Ill.

SONGWRITERS

LARGE RECORDING COMPANY WANTS NEW SONGS! Your song may be chosen for recording on ROYALTY BASIS. NATIONAL SALES, PROMOTION, DISTRIBUTION if selected. Send songs, song poems for FREE examination. NO CHARGE FOR MELODIES.

MUSIC MAKERS, Dept. AM-8 Box 2507, HOLLYWOOD, CALIF.

"PSYCHIC
DOMINANCE

How to RULE OTHERS with your THOUGHTS." (Full course—with original exercises). Telepathy being controversial, no promises made. For adults. (SATisfaction, or refund). $2. DELMAR, 846-M3, Sunnyside, Chicago 40.

Free Book on Arthritis And Rheumatism

HOW TO AVOID CRIPPLING DEFORMITIES

Explains why drugs and medicine give only temporary relief and fail to remove the cause; tells all about a specialized non-surgical, non-medical treatment which has proven successful since 1919. Write for this 36-page FREE BOOK today.

BALL CLINIC Dept. 16 Excelsior Springs, Mo.

LEARN LOCKSMITHING

Learn this fascinating, profitable trade from experts in your spare time at home! Age or physical handicap no disadvantage. Year around, steady income. Full or part time. Practical, illustrated lessons. You can make money even while learning! All materials and special tools supplied without extra charge.

send for FREE BOOKLET

SCHOOL OF LOCKSMITHING, Dept. AM-3,
15 Park Avenue Rutherford, N. J.
Lic. by N. J. State Board of Education
Approved for Veterans

OIL NEWS LETTER

Free on request. Includes map showing recent successful well completions, new field discoveries, etc. Also drilling wildcats and their progress, oil and gas news items regarding an area that offers you the chance of a lifetime by filing oil and gas leases on U. S. Govt. land.

OIL LEASE SERVICE, INC., Dept. AD
8943 Wilshire Blvd. Beverly Hills, Calif.

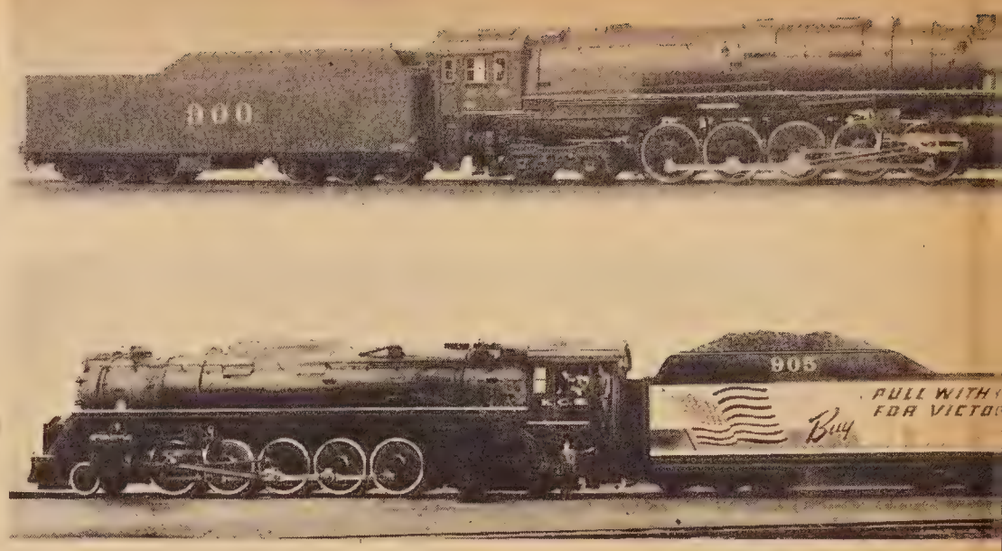
IMPORTANT NOTICE TO SUBSCRIBERS

If you are going to move, please advise us at least 6 weeks in advance, giving the old address as well as the new with postal-zone number if any. Please enclose, if possible, the address stencil imprint from the last issue received.

POPULAR PUBLICATIONS, Inc.

Subscription Department, 205 E. 42nd St.

NEW YORK 17, N. Y.



Ten Lima 2-10-4's, series 900-909, were built for KCS in 1937, scrapped in '53.

Nos.	Built	Disposal
403	1897	Scrapped 1926
404	1897	Scrapped 1911
405	1897	Scrapped 1916
406	1897	Sold Pickering Lbr. 1910
407	1897	Scrapped 1911
408	1897	Scrapped 1910
409	1897	Scrapped 1911
410	1897	Scrapped 1911
411	1897	Sold KC&M 1913

Class D-7: (Originally Nos. 500-506) 67-inch drivers, 20x26 cylinders, weight 155,000, weight on drivers 116,000, boiler pressure 185, tractive effort 24,400. Renumbered and rebuilt in 1908 with 67-inch drivers, 20x26 cylinders, weight 178,500, weight on drivers 135,000, boiler pressure 200, tractive effort 26,389.

600	1903	Scrapped 1947
601	1903	Scrapped 1947
602	1903	Sold Lone Star Steel 1948
603	1903	Scrapped 1939
604	1903	Scrapped 1939
605	1903	Scrapped 1947
606	1903	Scrapped 1948

2-8-0 Type

Nos. 475-511 were built by Pittsburg, Nos. 550-564 by Richmond, the rest by Baldwin.

Class E-2: 51-inch drivers, 22x28 cylinders, weight 195,000, weight on drivers 175,000, boiler pressure 190, tractive effort 41,785. Nos. 450-453 were built for PS&N in 1903, but never delivered to them. All were sold to Code de Metals in S. America in 1917.

Class E-1: 57-inch drivers, 21x30 cylinders, weight 177,000, weight on drivers 157,000, boiler pressure 200, tractive effort 39,460. Originally these were Vauclain Compounds with 57-inch drivers and 15½x26x30 cylinders. Nos. 460-469 were rebuilt to simple in 1904-'06, Nos. 470-474 in 1907. They were renumbered from Nos. 420-434.

460	1900	To switcher 1011 in 1928
461	1900	Sold Western Equipt. 1917
462	1900	To switcher 1001 in 1925
463	1900	To switcher 1006 in 1926
464	1900	Sold Tucson, Corn & GB, 1918
465	1900	To switcher 1010 in 1927
466	1900	To switcher 1002 in 1925
467	1900	To switcher 1004 in 1925
468	1900	To switcher 1003 in 1926
469	1900	To switcher 1005 in 1926
470	1903	To switcher 1009 in 1927
471	1903	To switcher 1008 in 1926
472	1903	To switcher 1012 in 1929
473	1903	To switcher 1007 in 1926, to L&A 1007 in 1940
474	1903	To switcher 1000 in 1924

Class E-3: 55-inch drivers, 22x30 cylinders, weight 220,380, weight on drivers 194,560, boiler pressure 210, tractive effort 47,124.

Jack Avery, Ft. Smith, Ark.

Articulated giant KCS 957, built by Brooks, hauls freight through Oklahoma.

Nos.	Built	Disposal
475	1906	Scrapped 1950
476	1906	To switcher 1021 in 1925
477	1906	Scrapped 1952
478	1906	Scrapped 1953
479	1906	To switcher 1022 in 1925
480	1906	Scrapped 1952
481	1906	Scrapped 1952
482	1906	To switcher 1020 in 1925
483	1906	Scrapped 1947
484	1906	Scrapped 1953
485	1906	To Bychuck Sport, Scrapped 1953
486	1906	Scrapped 1951
487	1906	To switcher 1024 in 1926
488	1906	To switcher 1023 in 1925
489	1906	Scrapped 1952
490	1906	To L&A 490 in 1939
491	1906	To L&A 491 in 1940
492	1906	Scrapped 1951
493	1906	Scrapped 1939
494	1906	To L&A 494 in 1939
495	1906	Scrapped 1951
496	1906	To switcher 1027 in 1926
497	1906	Scrapped 1952
498	1906	Scrapped 1939
499	1906	Scrapped 1939
510	1906	Scrapped 1954
511	1906	To switcher 1030 in 1927
512	1907	To switcher 1026 in 1926
513	1907	Sold Texas Northern 1948
514	1907	Scrapped 1948
515	1907	To switcher 1031 in 1927.
516	1907	Scrapped 1948
517	1907	To switcher 1029 in 1927
518	1907	To switcher 1025 in 1926
519	1907	Scrapped 1952
520	1907	Scrapped 1952
521	1907	Scrapped 1950
522	1907	Scrapped 1952
523	1907	Scrapped 1939
524	1907	Scrapped 1939
525	1907	Scrapped 1951
526	1907	To L&A 526 in 1940
527	1907	Scrapped 1939
528	1907	Scrapped 1952
529	1907	Scrapped 1952
530	1907	To switcher 1028 in 1927
531	1907	Scrapped 1952
532	1908	Scrapped 1952

Class E-4: Originally 57-inch drivers, 24x30 cylinders, weight 254,000, weight on drivers 224,000, boiler pressure 175, tractive effort 52,923. Rebuilt (except Nos. 556, 559, 560) with 63-inch drivers, 26x30 cylinders, weight 260,000, weight on drivers 226,200, boiler pressure 200, tractive effort 54,948.

550	1913	Scrapped 1951
551	1913	Scrapped 1951
552	1913	Scrapped 1952
553	1913	Scrapped 1953
554	1913	Scrapped 1952
555	1913	Scrapped 1953
556	1913	Scrapped 1951
557	1913	Scrapped 1951
558	1913	Scrapped 1952
559	1913	Sold L&A 1940
560	1913	Sold L&A 1940
561	1913	Scrapped 1952
562	1913	Scrapped 1953
563	1913	Scrapped 1953
564	1913	Scrapped 1951

0-6-6-0 Type

Class G: 57-inch drivers, 22x35x32 cylinders, weight 352,000, boiler pressure 225, tractive effort 80,463 Compound, 96,555 simple. Schenectady built them.

700	1912	Scrapped 1937
701	1912	Scrapped 1947
702	1912	Scrapped 1937
703	1912	Scrapped 1937
704	1912	Scrapped 1937
705	1912	Scrapped 1937
706	1912	Scrapped 1947
707	1912	Scrapped 1937
708	1912	Scrapped 1937
709	1912	Scrapped 1937
710	1912	Scrapped 1937
711	1912	Scrapped 1947

2-8-8-0 Type

Schenectady built Nos. 750-756. Nos. 757-766 were built by Brooks. Several of this type were for a time supplied with Bethlehem tank boosters.

Class G-1: (Rebuilt) 57-inch drivers, 26x41x32 cylinders, weight 495,000, weight on drivers 466,000, boiler pressure 250, tractive effort 122,683 Compound, 147,220 simple. No. 750 was converted to a pulverized coalburner in 1929, boiler pressure raised to 250. Reconverted by 1930.

750	1918	Scrapped 1949
751	1918	Scrapped 1947
752	1918	Scrapped 1951
753	1918	Scrapped 1939
754	1918	Scrapped 1947
755	1918	Scrapped 1947
756	1918	Scrapped 1947

Class G-2: 57-inch drivers, 26x41x32 cylinders, weight 495,000, weight on drivers 476,000, boiler pressure 250, tractive effort 122,000 Compound, 147,220 simple. Nos. 758, 759, 762, 764 rebuilt simple in 1939-42 with 26x32 cylinders (2), tractive effort 135,000. No. 766 was converted to a pulverized coalburner around 1929, given a special tender. Reconverted by 1930.

Nos.	Built	Disposal
757	1924	Scrapped 1952
758	1924	Scrapped 1953
759	1924	Scrapped 1952
760	1924	Scrapped 1947
761	1924	Scrapped 1947
762	1924	Scrapped 1952
763	1924	Scrapped 1947
764	1924	Scrapped 1952
765	1924	Scrapped 1947
766	1924	Scrapped 1951

4-6-2 Type

Class H: 75-inch drivers, 24x28 cylinders, weight 258,000, weight on drivers 159,500, boiler pressure 200, tractive effort 36,600. Schenectady built them all. By 1936 boiler pressure was 225, tractive effort 41,126.

800	1912	Sold L&A 1939
801	1912	Scrapped 1951
802	1912	Scrapped 1953
803	1912	Scrapped 1952
804	1912	Scrapped 1953
805	1912	Scrapped 1951
806	1912	Sold L&A 1939
807	1912	Scrapped 1954

Class H-1: 75-inch drivers, 24x28 cylinders, weight 268,000, weight on drivers 166,500, boiler pressure 205, tractive effort 37,500. By 1936 boiler pressure was 225, tractive effort 41,126. Schenectady built all.

Nos.	Built	Disposal
808	1919	Scrapped 1951
809	1919	Scrapped 1952
810	1919	Scrapped 1953

Shay Types

Class S: No. 900, built by Lima in 1913, scrapped in 1928, had 48-inch drivers, 18x20 (3) cylinders, weight 381,870, weight on drivers 267,720, boiler pressure 180, tractive effort 68,870.

Class S-1: No. 901, built by Lima in 1914, scrapped in 1929, had 48-inch drivers, 17x18 (3) cylinders, weight 296,300, weight on drivers 213,000, boiler pressure 180, tractive effort 54,865.

2-10-4 Type

Class J: Nos. 900-909 were all built by Lima in 1937 and scrapped in 1953, had 70-inch drivers, 27x34 cylinders, weight 509,000, weight on drivers 350,000, boiler pressure 310, tractive effort 93,300.

0-8-0 Type

Baldwin built Nos. 1000-1012, 1025, 1026, 1028, 1029, 1031. The rest were built by Pittsburg. No. 1000 had Bethlehem tank boosters applied in 1925, removed by 1932.

Class K: 55-inch drivers, 21x30 cylinders, weight 189,850, boiler pressure 210, tractive effort 42,973. These were rebuilt from 2-8-0's, Class E-1. Original numbers in parentheses.

1000 (474)	1903	Scrapped 1953
1001 (462)	1900	Scrapped 1948
1002 (466)	1900	Scrapped 1948
1003 (468)	1900	Scrapped 1953
1004 (467)	1900	Scrapped 1948
1005 (469)	1900	Scrapped 1954
1006 (463)	1900	Scrapped 1948
1007 (473)	1903	Sold L&A 1940
1008 (471)	1903	Scrapped 1948
1009 (470)	1903	Scrapped 1948
1010 (465)	1900	Scrapped 1953
1011 (460)	1900	Scrapped 1948
1012 (472)	1903	Scrapped 1952

Class K-1: 55-inch drivers, 22x30 cylinders, weight 240,000, boiler pressure 210, tractive effort 47,124. These were rebuilt from 2-8-0's, Class E-3. Original numbers in parentheses.

1020 (482)	1906	Scrapped 1950
1021 (476)	1906	Scrapped 1953
1022 (479)	1906	Scrapped 1952
1023 (488)	1906	Donated Schlanger Park 1955
1024 (487)	1906	Sold G. T. Cook 1954
1025 (518)	1907	Scrapped 1951
1026 (512)	1907	Scrapped 1950
1027 (496)	1906	Scrapped 1953
1028 (530)	1907	Scrapped 1952
1029 (517)	1907	Sold G. T. Cook 1954
1030 (511)	1906	Scrapped 1952
1031 (515)	1907	Scrapped 1953

Do You Like art?
DRAW FOR MONEY!
Our Simple Method Proves You Can Learn to Draw at Home in Spare Time
YOU can learn Commercial Art, Designing, Illustrating, Cartooning, etc. . . . right at home, in spare time. No previous art training necessary. Soon be your own boss—work at home, pick your own working hours. Or earn big money as staff artist for advertising agency, newspaper, magazine, dept. store, TV, etc. Or make Art a profitable hobby. Earn while you learn. 22-piece art outfit given with your first lesson AT NO EXTRA CHARGE. (School established in 1914.)
FREE BOOK, "ART FOR PLEASURE AND PROFIT." Describes method. Tells what our students say. Talent Test also sent free. No obligation. So mail coupon at once.
MAIL THIS COUPON FOR FREE BOOK
Washington School of Art
Studio 33, Port Washington, N. Y.
Send me—FREE—your valuable illustrated Book, "Art for Pleasure and Profit" and your Free Talent Test. No obligation. No salesman will call.
Name.....Age.....
(PLEASE PRINT PLAINLY)
Street.....
City.....Zone.....State.....

★ SONG POEMS WANTED TO BE SET TO MUSIC
Send Poems. Immediate Consideration.
PHONOGRAPH RECORDS MADE
FIVE STAR MUSIC MASTERS, 620 BEACON BLDG., BOSTON, MASS

LEG SUFFERERS
Why continue to suffer without attempting to do something? Write today for New Booklet—"THE LIEPE METHODS FOR HOME USE." It tells about Varicose Ulcers and Open Leg Sores. Liepe Methods used *while you walk*. More than 60 years of success. Praised and endorsed by multitudes.
FREE BOOKLET
LIEPE METHODS, 3250 N. Green Bay Ave., Dept. C-63 Milwaukee 12, Wisconsin

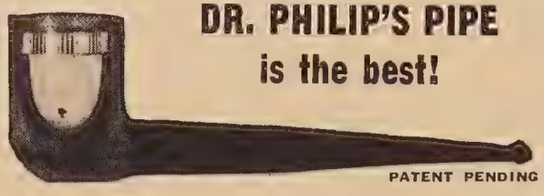
OIL INVESTORS
I offered you interests in 2-major company fields. ONE ALREADY AN IMPORTANT DISCOVERY. OTHER FIELD TO DRILL.
IF YOU VALUE LEASE OR ROYALTY INTERESTS OF GREAT POTENTIAL AT LOW COST, COMPLETE DATA WILL BE FURNISHED FREE.
W. J. Peterman, Geologist
Exploration Portales 1918-1956 Engineering New Mexico

Shrinks Hemmorhoids New Way Without Surgery
Science Finds Healing Substance That Relieves Pain — Shrinks Hemorrhoids
For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain—without surgery.
In case after case, while gently relieving pain, actual reduction (shrinkage) took place.
Most amazing of all—results were so thorough that sufferers made astonishing statement like "Piles have ceased to be a problem!"
The secret is a new healing substance (Bio-Dyne*)—discovery of a world-famous research institute.
This substance is now available in *suppository* or *ointment form* under the name *Preparation H.*o Ask for it at all drug counters—money back guarantee. *Reg. U. S. Pat. Off.

THE PIPE SMOKER'S DREAM COME TRUE

Every Pipeful Proves . . .

- NO BREAKING IN!
- READY-MADE CAKE!
- DOUBLE COOLING ACTION!
- CANNOT BURN THROUGH!
- FEATHER-WEIGHT!
- FLAT BASE, WILL NOT TIP!
- FINEST QUALITY IMPORTED BRIAR!
- INTERCHANGEABLE CERAMIC FILTER BOWLS!



DR. PHILIP'S PIPE is the best!

PATENT PENDING

The ideal pipe for the STEADY SMOKER and especially the NEW SMOKER. Smokes dryer, cooler, cleaner. Ceramic bowls are interchangeable. Each pipe comes with FOUR extra bowls!

SHORT SMOKE MODEL ONLY $4.50
LONG SMOKE MODEL ONLY 5.50
(Both come with four extra bowls)

If not satisfied that this is the most amazing pipe you have ever owned, return within ten days and your money will be refunded!

QUALITY BAZAAR
Box 683 Grand Central Station, New York 17, N. Y.

Please send me postpaid ..... Dr. Philip's pipe(s). I enclose $..... to cover the cost of the pipe I have checked below.

☐ **SHORT SMOKE MODEL plus 4 EXTRA BOWLS @ $4.50**

☐ **LONG SMOKE MODEL plus 4 EXTRA BOWLS @$5.50**

NAME.....

ADDRESS.....

CITY.....ZONE.....STATE.....

(Sorry, no C.O.D.'s)

RAILROAD HOBBY CLUB

ITEMS sent to this department are printed free, in good faith, but without guarantee. Write very plainly.

Address *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No entry will be acknowledged by mail.

No entry may exceed 28 words—unless it deals with back numbers of this magazine. Specify condition of all magazines and books.

Use these abbreviations: *cond.*, condition; *ea.*, each; *elec.*, electric; *env.*, envelope; *eqmt.*, equipment; *esp.*, especially; *info.*, information; *n.g.*, narrow-gage; *negs.*, negatives; *p.c.*, postcard; *pref.*, preferably; *tr.*, train; *rr.*, railroad. The term *tts.*, refers to public timetables, unless preceded by *emp.*, when it means employes' (operating) timetables.

SWITCH LIST

JOHN AARDEMA, 114 16th Ave., Patterson, N. J., wants 5x7 pix of Garratt type locos, also Rdg. 0-4-0, broadside to ¾ front. Write first.

GEO. APPOGAST, Jr., 4644 E. 6th St., Tucson, Ariz., will sell Railroad Magazine, '53, '54, '55 (exc. July, Sept., Nov.); some '56. Also Trains, some '49, '50. Best offer for lot.

T. F. BABCOCK, 6370 Diamond Ave., Paradise, Calif., will buy Harry Bedwell's book, "The Boomer."

A. R. BAIRD, 259 N. 10th St., Colton, Calif., sells U. S. and Canadian loco rosters, recent and old. Too many to list. Write, stating your wants.

ALAN BARDAL, 6786 Hudson St., Vancouver, B. C., Canada, sells sizes 116, 616 pix, many rds. List for 5c coin. Wants same sz. steam negs. Canadian fans, write.

JERRY BERWALD, 433 N. Avon St., Rockford, Ill., will sell 3x3 pix of Milw., CB&Q, C&NW, IC—locos, cars, yards, etc., or trade for pix other rds.

L. W. BULLOCK, Rt. 1, Johnson City, N. Y., will trade 2 issues Baldwin Locos. mags., 1927-'31, for one Oct. '25 issue of same.

J. C. BURCHARD, Box 293, East Haven, Conn., buys negs. oldtime AT&SF steam locos, cars. Sells pix, steam and elec. List for 3c stamp.

H. J. BURKHALTER, 45 Walnut St., Auburn, N. Y., will sell oil-burning rr. hand lanterns, $5 to $7 ea., or trade same for old tinplate trains.

F. E. BUTTS, 476 N. 5th Ave., Sturgeon Bay, Wis., will sell size 616 trolley negs., European, U. S. List of 5,000, 10c.

R. CARPENTER, (Erie RR. agent), 310 Allen Place, Ridgewood, N. J., will trade tickets, any rr., for Erie mags., tickets, tr. ords.

H. P. CHILDERS, Box 145, Union Mills, Ind., offers 105 emp. tts., various rds., $21.

F. J. COMAN, 2137 Welbraham Rd., Springfield, Mass., collects switch keys, pass. condr. and bkman. cap badges.

JIM CORBETT, 186 Maple St., Glens Falls, N. Y., will sell or trade Feb. '50 Off. Guide and many tts., U. S., Canadian, Mexican rds., air, bus, boat lines, '50 to date, good cond.

E. B. CROASMUN, 132 Pleasant Ave., Punxsutawney, Pa., is retiring and will sell for best offers 21-J Illinois B. special rr. watch and 19-J Elgin rr. watch. Both need cleaning.

E. E. CROSBY, Box 823, Cadosia, N. Y., trades switch keys; info. on request.

LU CUMMINGS, Jr., 129 Nevin St., Lancaster, Pa., will sell or trade trfs., tts., rr. and trolley pix. Wants pix of Steelton & Highspire and Phoenix Iron & Steel, also elec. transp. info. Send stamped env. for lists.

HOWELL DAY, 300 Vail Ave., Dunellen, N. J., has 125 issues Railroad Magazine, Mar. '34 thru Aug. '52; good cond., to swap for pre-1930 issues or sell lot for $30 plus express.

ED DeVITO, c/o F. M. H. Harris, Hoerle Blvd., Torrington, Conn., sells hand-printed 5x7 1957 photo calendars showing SR&RL No. 9 and tr., 50c ea.

CHUCK De WEESE, 115 North Cross, Robinson, Ill., wants info. on 19-A tr. ords. plus samples of same, IC form 31, CCC&StL forms.

DAN DIETRICH, 3427 N. 24th Place, Milwaukee, Wis., will trade info. Midwest lines for info. New England rds. Wants to hear from New Eng. railfans.

Mrs. CLINTON FERRIS, 333 Union Place, Akron, O., will sell Trains, '49 thru '55; Railroad Magazine, '47 thru '55; Model RRer, '45 thru '55., all good cond. Make offer.

TED GAY, 156 Van Buren Ave., Teaneck, N. J., will sell size 116 camera, $15; p.c. 32 camera, $10; in each case plus post. Sells p.c. size negs. most rds., incl. many small pikes.

ED GEBHARDT, 149 So. Highway Dr., New Orleans, La., will buy or trade railroadiana for Loco. Cyclop., Car Bldrs' Cyclop., any year, any cond.

HAL HENSON, 345 Ingleside Ave., Dayton, O., will buy Ohio rr. map.

BOB HESS, Traffic Dept., Merck & Co., Inc., Rahway, N. J., will buy Mann, Wagner, Pullman Palace, Pullman Co. lists of std., tourist, sleeping cars, rosters, pix.

L. E. HEWITT, 15 Cranleigh House, Cranleigh St., London, N.W.1, England, wants railfan pen pals.

RAY F. HIGGINS, 419½ Katahdin Ave., Millinocket, Maine, sells p.c. prints BAR, CPR, Me. Cent., steam, diesel, snow scenes, etc.; also srations and cars of various rds.; 12c ea., on approval.

BILL JAROSZEWSKI, 2013 W. Orange St., South Bend, Ind., will sell or trade elec., diesel, steam pix. Wants teen-age pen pals.

JIM JEFFERY, 1569½ Hoyt St., Muskegon, Mich., will trade GTW, C&O, CNR pix for L&N, Clinch., ACL, GN, NP, SP&S, Burl., CPR, small roads.

H. E. JENKINS, One Sixth St., Upland, Pa., asks where he can buy loco-shaped paperweights.

B. F. KERR, (retired D&RGW engr., age 82), 211 S. Pennsylvania St., Denver, Colo., has over switch keys; wants P&FtW key.

H. M. KNIFFEN, P.O. Box 81, Poughquag, N. Y., will sell p.c. and 5x7 pix locos, eqmt., many rds. List for 10c.

J. E. KRISKEY, 179 N. Water St., Byram, Conn., will trade 3rd Ave. El spikes for spikes of other rds.

N. A. KUTUSOFF, 45 Montecito Ave., San Francisco, Calif., will sell 53 bound vols. I.C.S. Comp. Civil Engrs., $25; 20 vols. Loco Engr. courses, $15. all good cond.

RONALD LEWIS, 554 Eucalyptus Ave., Hawthorne, Calif., will buy or trade pix, negs., misc. matter of Boston El, MTA, other Mass. elec. lines.

J. LOCKE, 428 Prospect Ave., Hackensack, N. J., sells pocket-size pix, negs., Erie, CNJ, Rdg., B&O, LV, NYS&W, etc., steam locos. Big selection.

ALAN MILLER, 1836 Gardena Ave., Glendale, Calif., sells 35 mm. color slides, SP, UP, AT&SF, Pennsy, B&O, N&W, etc. List free.

L. D. MOORE, Jr., 21 Rowan Place (Cradock Gardens), Portsmouth, Va., sells size 616 and p.c. pix, negs., locos, trolleys, ferries, steamships, rr. mags. tts., etc. List for big env. and 6c stamp.

EDW. MORAN, 330 Netherland, Riverdale, N. Y., will sell Railroad Magazine, '36 thru '48, many model mags., other U. S. and English railroadiana. Write for details.

(Concluded on page 82)

NOW MAKE YOUR OWN REAL GUNS "DO IT YOURSELF" GUN KITS

CAP & BALL MUZZLE LOADER

DERRINGER

FRONTIER SIX SHOOTER

These "Do It Yourself" gun kits are all complete including grips. All machine operations have been done for you. You only do the de-burring, fitting, polishing, and blueing. Fit the action to suit your own personal taste. Polish and blue, chrome, or gold plate in the manner you consider most attractive. With a little patience and care, you can produce a smooth-shooting gun, hand fitted to precision accuracy and superior in many respects to production line models.

CAP & BALL REVOLVERS: Beautiful photo catalog all about our "Do It Yourself" real gun kit on our new 44 caliber Cap & Ball revolvers. This fine revolver is not a copy of any existing model. It is a take-off from the 1860 Army model mfg. by Colt during the Civil War. This new handgun is of interest not only to muzzle loading fans, but also opens an entirely new shooting field for the handloader and target enthusiast. For those who like to shoot a powerful weapon and yet do not wish to spend the huge sums involved in shooting factory ammo our new Frontier Cap & Ball revolver is the answer. Capable of being reloaded in less than a minute, shooting this gun has none of the problems which constantly beset the handloader. The problem of finding empty brass cases and the use of expensive primers is eliminated. Also included are photographs, descriptions and low prices of hundreds of original Colt Percussion revolvers we are selling out. Send 50c today for your Cap & Ball "Do It Yourself" gun kit catalog.

DERRINGERS: We have prepared a beautiful photo catalog that lists all of our Real Derringer "Do It Yourself" gun kits. .22 caliber, .38 S & W and .38 S & W special calibers. These are brand new Derringers, but they appear exactly like the old Remington Derringers. However the action has been completely re-designed, eliminating all the old fashioned springs, etc. This Derringer catalog also includes hundreds of other Derringers such as Colt, Remington, Sharpes, etc. that we are selling at low prices. Our lowest Derringer "Do It Yourself" gun kit sells for less than $20.00 so the savings are considerable. Send in 50c today for your Derringer Catalogs.

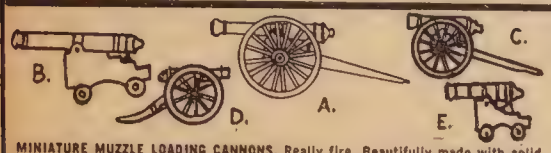
MACHINE GUNS!

U.S. THOMPSON SUB MACHINE GUN

GERMAN SCHMEISSER

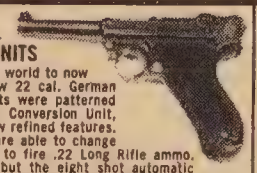
Hy has been collecting Machine Guns for over ten years. He has about every model, type and kind you ever heard of. Hy has kept many of them in his big Gun Museum in Burbank, but now he has gotten so many he has decided to liquidate them. We have prepared a beautiful photo catalog of the various makes, giving their complete description, and low sale prices. We have very carefully plugged the bbls. so they won't fire, but all the operating mechanism still works. From the outside it's impossible to tell that anything has been altered at all. No registration is necessary and anybody can purchase one; no age limit, as they are for souvenirs and collection purposes. Send in 50c today for this big photo catalog of wonderful machine gun buys.

FRONTIER SIX SHOOTERS: We have prepared a beautiful catalog that lists all of our Frontier Six Shooter "Do It Yourself" gun kits. .22 cal. .38 Spc., .45 long Colt, .44 special and magnum and 357 magnum calibers. Special low prices are included along with detailed assembly instructions, also complete Frontiers, and all their different accessories such as special grips, ammo, holster prices, etc., famous Colt Frontier, questions and answers, How To Quick Draw, etc. Send in 50c today for the photo Frontier Six Shooter Catalog.



MINIATURE MUZZLE LOADING CANNONS. Really fire. Beautifully made with solid brass barrels and iron wheels. Wonderful desk or den table decoration. **A.** U.S. Civil war 12 pounder, 8" overall also used by the confederate forces, **$7.50** **B.** Civil War Naval Cannon on four wheeled "Broadside" carriage, 5¼" overall, **$7.50** **C.** Revolutionary War type field "Howitzer." Exquisitely made, 5" overall, **$5.00** **D.** U.S. Mexican War light field piece, 4½" overall, **$5.00** **E.** Revolutionary War ships cannonade 3" overall, **$3.00** **Special Collection Price** **Special Complete Collection** price of all 5 cannons for **$25.00**

GERMAN LUGERS & 22 CAL. CONVERSION UNITS



Scoop! We are the first firm in the world to now be able to offer you a brand new 22 cal. German Luger Conversion Unit. These units were patterned after the famous German "Erma" Conversion Unit, but there has been added many new refined features. Now in a matter of seconds you are able to change over any 9mm cal. German Luger to fire .22 Long Rifle ammo. These are not single shot units, but the eight shot automatic ones. Unit consists of bbl., complete top automatic working mechanism and 8 shot clip. Special introductory price of **$39.50.** We also have many hundreds of fine original German Lugers in stock. Have prepared a photo catalog of all our various Lugers at low prices and more information about the new .22 cal. Conversion Unit which we will send you postpaid for 50c.

SCOTLAND YARD GUNS

We still have a few of the revolvers taken from thugs and scalawags by men from the famous 'yard.' No two alike. Each group comes with notarized personal letter verifying their origin. Rare collectors item. 2 different guns **$17.00—3-$23.00. 5 - $35.00, 10 - $65.00.**

AFRICAN TROPICAL ALL-WEATHER HELMETS

Authentic imported article — selling for $12.50 elsewhere. Made of real cork and fine material, removable leather sweat band. Send hat size and **$2.95.**

LILLIPUT BROWNING PISTOL -

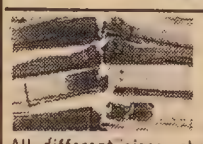
Not a toy! 2mm cal. and is 1¾" long. It will shoot a lead slug through over 300 pages in our local telephone book. Special price **$6.95 per gun.** Free with each pistol—Matching key chain to hang pistol from and a tube of shells. Extra shells **50c per tube.**

.22 CAL. CARBO-JET GAS PISTOL

Sensational brand, new CO'2 pistol. 8 shot repeater. Built like German Luger. Adj. sight, power control, automatic residue drain, trigger finger safety, adj. target trigger. High velocity, stag finish grips. Free power cylinder and 200 rounds of ammo with each gun ordered. **$19.95**

FRENCH SECRET POLICE GUNS

Similar to Scotland Yard guns. A very rare and valuable collection. Each group comes with personal notarized letter verifying their origins.
Group I — Guns up to 50 yrs. old, **2 guns for $17.00, 3 guns for $23.00, 5 guns for $35.00.**
Group II — Guns over 50 years old, **2 guns for $19.50, 3 for $27.00, 5 for $42.50.** Guns in this group are all the rare pin fire models.



RIFLE SLINGS

All different sizes, shapes and lengths. Will fit any American or European rifle any caliber. Extra low price of **10 for $3.00**

LEBEL 11mm REVOLVER—

Huge revolver used by the famous "Foreign Legion." When hit with a bullet from one of these monsters you seldom recover. Collectors item and a sound value at **$15.95** each.

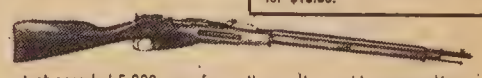
LITTLE ATOM PISTOL

It's as small as the end of your thumb but it "sounds off" like that package they dropped on Hiroshima. The world's "showiest" small pistol —gold plated with pearl grip. Complete with ramrod and a capsule of blanks, **$2.95.** extra blanks **50c per capsule.**

BAYONETS

Beautiful wall decorations for dens or gun room. Collected from all parts of the world. 3 different for **$5.00;** 7 different for **$10.00.**

LONG GUN SPECIAL



Just corraled 5,000 guns from all over the world, representing darn near every country you ever heard of. While they last, I'll ship you — **1 for $12.50, 2 for $20, 3 for $25.** No two alike.

.22 CAL. MIGHTY MIDGET REVOLVER

Brand new. Made in west Germany. Fine precision revolver. Cylinder holds 6 cartridges. Fires new .22 Remington Rocket or any .22 short or long ammo. Both single and double action. Perfect for home, camping, target practice, etc. **$19.95.**

PHOTO LEFT OUT TO KEEP ITS APPEARANCE A SECRET — BABY SECRET SERVICE PISTOL

This is a real gun. Just because its less than 2" long don't let the size fool you. Used by secret agents to kill enemies without detection. Each pistol carries a serial number and comes under the same pistol laws as any of its big brothers. Special low price of **$3.95.** 2mm blanks per tube **50c.** 2mm real live lead bullets **$1.00** per tube (will kill, extreme caution should be used in firing live ammo.)

CIVIL WAR BELT BUCKLES

Whether your heart is north or south of the Mason-Dixon line this is your chance to identify yourself. We have both the Northern and Southern Buckles in authentic reproduction at **$2.00** each. Leather belt for buckle now only **$3.00.** State size.

ENFIELD COMMANDO REVOLVER

.38 Smith & Wesson caliber. Rare and unusual weapon designed and used by the British Commando force (WW II). Modern breaktop design. Fires .38 S & W ammo. Every gun in perfect condition with excellent bores. Powerful, fine shooting piece. Only **$19.95.**

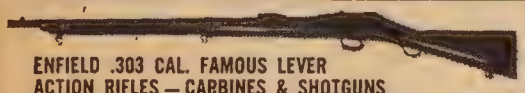
LEBEL 8mm REVOLVER

Fine precision made revolver. A grand collector's item. This same revolver is now being carried by French officers in the Egyptian Suez War. New Low price of **$14.95.**

SWISS "MODEL 93, LIGHTNING SPORTER"

The most beautiful and compact of all the Swiss Carbines. Made like a Jewel. The very best in Modern big game carbines. Standard 30 cal. In Excellent Condition **$29.95.** Ammo 10c per rd. All you want.

ENFIELD .303 CAL. FAMOUS LEVER ACTION RIFLES — CARBINES & SHOTGUNS



Just arrived from the British West Indies. Used by the guard troops and all in perfect firing condition. Wonderful for deer hunting or collecting purposes. Rare, large Martini single shot action. Can be converted to large bore target rifle. Ammo available everywhere. Special price **$19.95.** Companion 3 sided bayonette **$3.95.** . . . ENFIELD 410 GAUGE SHOTGUN — Very rare and unusual. Looks exactly like an Enfield .303 but really a .410 gauge single shot. Used by British officers in India for bird shooting. **$22.50.**

CARBINE MODELS, same as the rifle except shorter bbls. now **$21.95.**

EUROPEAN SCHUTZEN TARGET RIFLE

This is the rifle that is used by all of the professional target shooters in Europe. They are .30 cal. single shot, with massive target stocks. All in good condition. A wonderful shooter and a magnificent mantle or den display piece. We only have twenty-five of them to go at the special price of **$59.95** each.

EUROPEAN COLLECTOR'S SPECIAL

Special purchase of antique European military revolvers in rare and unusual calibers. Each one from a different country. Fair condition. **6 for $50 - 3 for $28.50.**

BOAT JUST ARRIVED

British Lee-Enfield 303 cal. Bolt Action Rifle. 10 shot magazine. **$27.50.**
German Mauser 7mm cal. Bolt Action Rifle. Model 93. 5 shot big game rifle **$24.95.**
Schmidt Ruben Rifle 7.5mm (30 cal.). 12 shot repeating mag. free with each rifle. **$13.95.** Ammo 10c per rd.
Antique Short Sword. Over 100 years old. Special **$2.95** each.

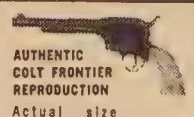
MAUSER MODEL 95 ACTION

This short action is used with great success in building sporting rifles such as the 300 Savage, 7mm Mauser, .35 Remington, 308 Winchester, .257 Roberts, and other calibers. Add 50c for each action ordered to cover postage **$13.95.**

SWISS "MOUNTAINEER SPORTER"

Used by Alpine Hunters, this fabulous carbine is acclaimed one of the finest ever made in Europe. Terrific deer rifle. Cal. 30 Swiss, 22" bbl. Free cleaning kit and sling with each order. Excellent condition **$21.50.** Ammo 10c per rd. All you want.

AUTHENTIC COLT FRONTIER REPRODUCTION



Actual size with 7½" bbl. Has real gun feel & appearance. Silver finish with real steer head grips — working hammer and trigger. Composed of plastic and metal parts. Only **$2.00.**

HAND "GUNS" OF THE WORLD

Just finished writing this 120 page book on pistols and revolvers. Profusely illustrated. Chapters on How to buy Guns, Antique Collecting and firing, Colts, Revolvers, Automatic Pistols, Fortunes in Old Guns. Gun Care & Repair and more. All of this for **75c** - add **25c** for postage and handling.

LIQUIDATING 20,000 GUNS . . .

Send today for this huge catalog Hy has prepared of all his guns. For years Hy has collected guns from all over the world. Now he has decided to have a big gun sale. When he told us to list all of his tremendous gun collection in a catalog we almost didn't know where to start. This huge 1956 catalog is 8½ x 11" weighs 1½ lbs. and has almost 300 pages. Thousands of guns and accessories have been photographed — rifles, pistols, revolvers, shotguns — fully described and priced to sell. If you are interested in purchasing either an antique or modern firearm don't buy until you have had a chance to see what Hy is selling out. Never again will such a tremendous sale be made. Rush **$2.00** today and Hy will send you your new 1956 photo Guns catalog postpaid immediately.

EASY PAYMENT PLAN — Select the gun or merchandise of your choice today, and pay for it in full later! Just send 10% of total amount on any purchase, and we will immediately open an account in your name. As long as one year to pay and no carrying charges. You may pay as much or as little as you wish each month. When your account is paid in full, we will then process and fill your order promptly.

HOW TO ORDER GUNS—Send money order or check made payable to Hy Hunter. If you want something sent C.O.D. send a $5.00 deposit.
ENCLOSE WITH GUN ORDER: Fill out the following statement, and sign your name with date, age and address: "I hereby state that I am a citizen of the United States and that I have never been convicted in any court of the United States, the several states, territories, possessions or the Dist. of Columbia of a crime of violence, nor am I at present under indictment or fugitive from justice. I am of legal age, and am of sound mind."
MONEY BACK GUARANTEE — If not satisfactory, return it within 10 days from date received and money will be refunded.
All firearms are F.O.B. Burbank, California

HY HUNTER'S AMERICAN WEAPONS CORP. 3031 WEST BURBANK BOULEVARD BURBANK 24-R, CALIFORNIA

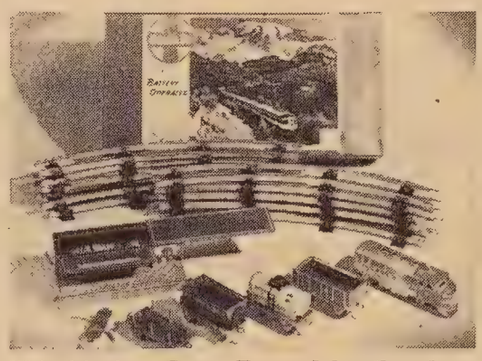
Men's Mart

FREE CATALOG!
BUY GENUINE
Diamonds
From New York's Leading

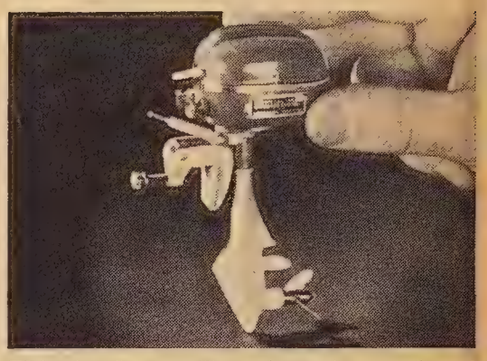
DIAMOND SPECIALIST
SAVE UP TO 50% AND MORE
Buy For Cash or Easy Credit PLAN

Tremendous savings on diamonds from unredeemed loans, bankruptcy sales and other below market sources. All reset in smart brand new 14 Kt. gold & platinum modern mountings. One of the world's largest selections. Every diamond graded according to nationally accepted system. Grading explained in catalog. You are 100% protected by a SWORN BOND guaranteeing quality and 10 DAY UNCONDITIONAL MONEY BACK GUARANTEE. Easy payment lay-away plan, and . . . see-before-you-buy plan available. Send coupon for FREE CATALOG. Established 1882. Our references: your own bank or any mercantile agency. **BUY FOR CASH OR CREDIT**

KASKEL'S 41 West 57th St. New York 19, Dept. 778-C
Send FREE CATALOG and Advice about DIAMONDS without obligation.
NAME .....
ADDRESS .....
CITY ..... STATE .....



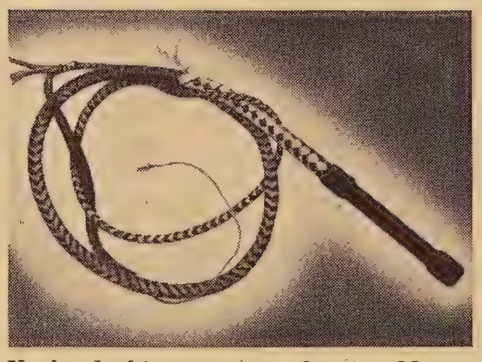
This 16 piece Santa Fe model railroad set is specially designed for the junior railroader. Includes detailed diesel locomotive, flat car, oil tanker, gondola, operating cement hopper, 3½-foot oval track. Battery operated (safe), flashlight batteries are housed in station which has remote control for forward, stop, reverse. Real value for $4.95 ppd. Gerard, 329 East 65th St., N.Y.



This is the smallest operating outboard motor made. In perfect scale, it can be used to power model boats (on anything from a 3 to 9 volt battery), decorate a game room—or even mix a drink. 4½" high and nicely made, it develops a strong 1850 r.p.m. Equipped with shutoff switch, adjustable mount and stand, it's a beauty. $3.95 ppd. Lincoln Products, 411 Lincoln Bldg., N.Y. 17.

SEND FOR
Free Record
START SPEAKING
FRENCH OR **SPANISH** ALMOST OVERNIGHT!

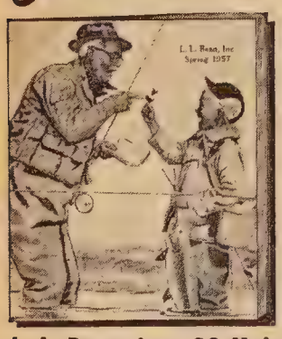
HERE'S the easiest way to learn FRENCH, SPANISH, Russian, German, Italian, Japanese or Brazilian Listen to FREE 2-sided non-breakable record. Let your eyes follow words in FREE sample lesson. Almost at once you'll be chatting in a new language with a perfect accent! That's all you hear! No dull, tedious work. Just listen—imitate! It's that easy! Offer may end soon. Rush 25c to help cover cost of special packaging, shipping. State language you want. We'll also send free information on full Cortina course. No obligation. **CORTINA ACADEMY, Dept. 1183, 136 W. 52nd St., New York 19.**



You're looking at an authentic old-time Western bull-whip (like the ones stagecoach drivers used) complete to weighted swivel handle. You can really twirl this one and it makes a terrific crack. Top-grade calf is 8-plaited, whip is balanced for accuracy. Real craftsmanship, low price. 6 ft., $7.95; 8 ft., $9.95; 10 ft., $11.95; 12 ft., $13.95. Arms & Weapons, 40-G East 40th, N.Y. 16.

Skillful jewelry artisans spent a great deal of time hand-molding these really exquisite sculptured roses. Each petal is deftly hand-turned and then hand-polished. Result is a unique set of sterling silver jewelry that ought to make any woman happy. Rose spray pin, $5.50; earrings, $5.50; 7¼" or 8" bracelet, $9.35; set, $19 ppd. Order from Alpine Imports, 505A Fifth Ave., N.Y.

Bean's Free Catalog



Ready February 14

Fully illustrated. 108 pages, showing special fishing tackle, footwear, clothing and one hundred and twenty-four other leather and canvas specialties of our own manufacture.

L. L. Bean, Inc., 33 Main St., Freeport, Me.
Mfrs. Fishing and Camping Specialties

Next Issue—June

"Ten-wheelers," a lively and informative article by H. L. Kelso.

Complete renumbering of Canadian National locomotives, steam and diesel.

"Anything's Liable to Happen" (fiction), Harry Bedwell at his best.

Plus other articles, true tales, short hauls, your favorite departments, a color-photo cover, and plenty of good pix. Out April 2.

This telescope was specially developed for celestial sight-seeing at a low price. It's a really good one and worth the money. A reflector telescope, with equatorial mount and tripod, it has a 4¼" aluminized mirror. Has 5-power finder telescope with focusing objective, rack and pinion eyepiece holder. Natural grain tripod. $74.50 collect. Edmund Scientific Corp., Barrington 110, N.J.

BRITAINS No. 1 RIFLE SMLE No. 1 MARK III
NATO CONVERSION ALLOWS RELEASE
ACCURATE, POWERFUL

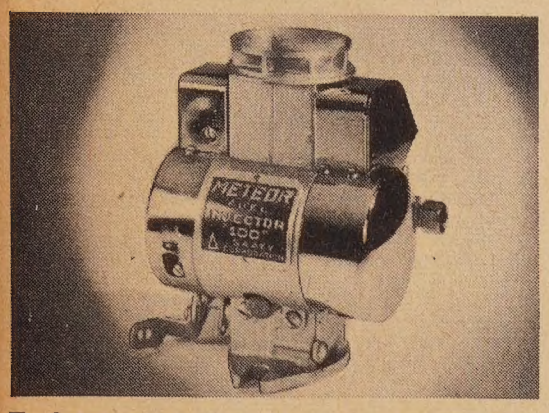
HUNTERS
$29.95

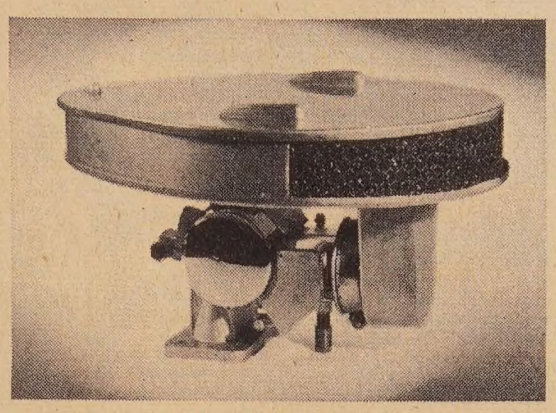
Pride of British troops throughout Empire today. Big Game hunters from Canadian wilderness to African Congo claim the powerful .303 caliber SMLE is best for all big game. Fastest bolt action in world. All milled parts. Long range sights. 10-shot mag. 25" Bbl. cal. .303. GUARANTEED VERY GOOD CONDITION complete with sling and 20 rds. ammo. **FREE.** (Addit. Mil. ammo. $7.50 per 100 rds). SOFT-NOSE SPORTING AMMO. American made, box of 20 rds. $2.95. Bayonet: $1.95. **TO ORDER:** Send check, cash or M.O. $10 for C.O.D. Calif resid. add 4% state tax.

GOLDEN STATE ARMS CORP. 363 Armory Bldg., 1165 E. Colorado St., Pasadena 1, Calif.

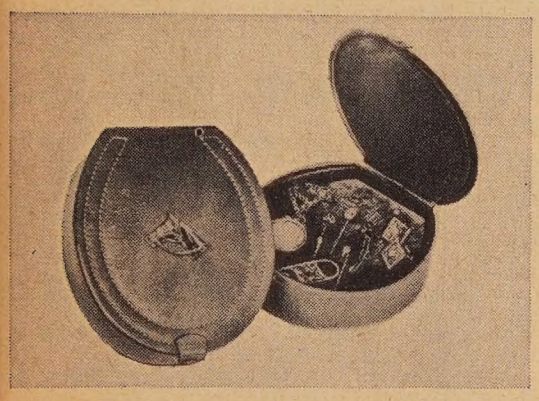
SHOP BY MAIL

All products shown here may be obtained directly from indicated sources. Send check or money order with your order. Manufacturer will refund full purchase price on prompt return of unused, non-personalized items. This department is not composed of paid advertising.

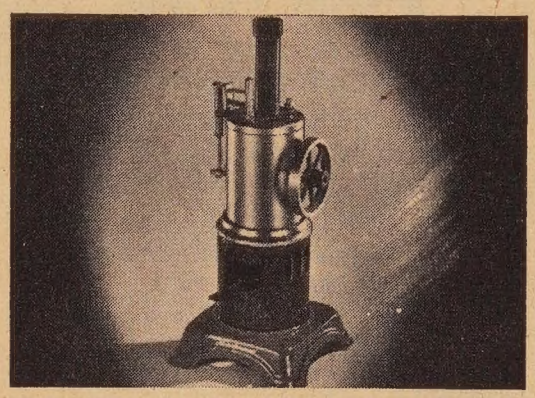




Fuel injection, the automotive marvel that is putting carburetors and superchargers on the shelf, can now be installed on *any* car. Detroit's 1957 models (Chevrolet, Cadillac, etc.) offer it; Germany's mighty Mercedes-Benz cars swept the tracks with it. These Meteor fuel injection units replace the old-fashioned suction-feed carburetor, give 1957 performance, much more power, plus better mileage, quicker throttle response. No more choking, icing, flooding, flat spots, oil dilution and other typical carburetor ailments. Based on Purdue research, tested 5 years on the road and by Brown Univ., these injectors are beautifully engineered. Specify year, make of car. For six cylinders, $39.95; for eight cylinders, $49.95 exp. col. Lincoln Automotive Industries, 1345 Lincoln Bldg., New York.

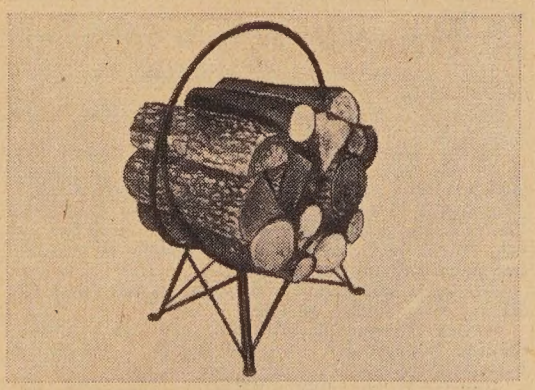


This is as nice an accessory case for men's cuff links as we've seen. Made from soft honey brown lambskin, it's shaped like a horseshoe, carries the design even further with a green velvet lining (the turf, naturally). Tray is removable. Case measures 6½x1¾" and has a snap closure. With or without horsehead ornament, $3.95 ppd. Western Classics, Box 4035-A, Tucson, Ariz.



This precision-made, live-steam engine will add realistic power to any operating model. Develops 1/30th h.p. at 1,000 r.p.m. Boiler is drawn brass and fittings are solid bronze. Has hand-throttle steam whistle and grooved pulley wheel. Operates off safe dry fuel and stands a full 10". German-made; with fuel for initial run. $7.95 ppd. from Chabon Scientific, 60-A East 42nd St., New York.

For those in the audience who like jazz, here's a fine example of it. A 12-inch LP, it features the Dukes of Dixieland in favorites like South Rampart Street Parade, Darktown Strutters Ball, Alabama Jubilee, Tailgate Ramble, etc. Top high-fidelity recording brings out the full tones of the trumpets, trombones, tuba, etc. $5.95 ppd. Dauntless Int'l, 750 Tenth Ave., N.Y. 19.



A useful and handsome fireside log crib like this one will be a handy addition to any fireplace home this winter. It holds 15 to 20 logs off the floor, saves trips to the woodpile. Rust resistant steel with black finish; stands about 28" high and is 21" in diameter. Complete with 5-minute assembly instructions. $9.95 ppd. Order from Leslie Creations, Dept. 153B, Lafayette Hill, Pa.

Improve Your NIGHT DRIVING Vision INSTANTLY

Now you can IMPROVE your NIGHT vision and ELIMINATE dangerous GLARE at once with this amazing new invention — LITENITE NIGHT DRIVING GLASSES. These remarkable glasses are made of special amber lenses that let through INFRA-RED light. INSTANTLY you see more clearly! Headlamps of oncoming cars look like soft amber lights — yet everything else is in sharp focus. Amazing, unbelievable until you actually put LITENITE on!

Not This—*But This*

LITENITE are NOT sunglasses but scientifically developed NIGHT LENSES used by airplane pilots to see more clearly through darkness and haze. Wonderful also for WALKING at night, TV and night sports.
Beautifully made with 24-KARAT GOLD-PLATED Aviation frame, comfort temples, adjustable nosepads, wide-angle lenses. FREE! Rich-looking Leatherette Carrying Case. TRY AT OUR RISK for full week. MONEY BACK if you don't say night driving is a pleasure! Send check or money order — or order COD plus postage. REGULAR Style only $2.98. CLIP-ON Style for use over prescription glasses only $2.25. State STYLE and whether for MAN or WOMAN.

Stuyvesant Trading Co., Dept. AM
130 West 42nd St., New York 36, N. Y.

WE PAY $16 for only 59 Lincoln Pennies

Send $1 for a Lincoln cent album (to hold your pennies). Fill the spaces with dates shown in album, return COMPLETE album and receive $16 by return air mail PLUS $1 back for album (total $17). Save other sets worth hundreds of dollars! All information sent with 1st album. Send $1 to: BYBYMAIL, BOX 67, Dept. E-51 Oakland Gardens Stat., Flushing, N. Y.

Yours as a gift! Big collection, just released, *New Issue* British Empire Stamps. *All genuine, all different*, hard to get right now. From agents everywhere. Valuable mint used, topicals, pictorials, bi-colors, commemoratives. *More!* New, valuable *free* "British Empire Bonus Packet" from all over Empire — unusual, seldom-seen stamps: Coronations, Jubilees, Royal Visits, Commemoratives. *Offer limited* — one collection per person. Other offers for inspection plus *free* "Stamp Collector's Guide". RUSH name, 10¢ for postage, handling to GARCELON STAMP CO., Dept. AM2N, Calais, Maine.

GARCELON STAMP CO., Dept AM2N
Calais, Maine. Rush FREE New Issues, Bonus Packet, Collector's Guide, other offers. Enclosed 10c for postage, handling. (PLEASE PRINT)

.....

.....

.....

DAVID MULKINS, Box 315, Fairfield, Iowa, will buy pix CB&Q 4-8-4's; 2-10-4's, 4-8-4 No. 5606; CRI&P 4-8-4's.

CURTISS NOYES, 1553 Benan Rd., Pittsburgh, Pa., will sell, trade or donate to rr. YMCA or library Railroad Magazine 1933 thru '35, '37, '42, '44, '51, '46, except Dec.; misc. copies '43, '45; '47 thru '50, '53, '54.

R. D. PATTON, Box 100, Fairfax Station, Va., sells steam loco pix. List and 2 samples, 25c.

Miss E. P. PAULLIN, 54 W. 74th St., New York City, has many old Western pix and clippings for sale, incl. orig. rr. prints, collector's items. Price on request.

O. W. PIROR, P.O. Box 123, Everett, Wash., will buy 35 mm. color slides, N&W Mallets and steam turbine-elec. locos, no off-color.

DON RALPH, 40 S. 16th St., San Jose, Calif., wants issue 142 Western Railroader and pix of Peninsular Ry., Palo Alto Lines, San Jose RR.

LEONARD RICE, 1639 Belvedere Blvd., Silver Springs, Md., wants Loco. Dict., 1909, '16, '22, '27, '30; also, Car Bldrs'. Cyclo., 1909, '25. Will sell or trade Loco. Dict., 1919, '41, '44, '47, and Car Bldrs.' Cyclo., 1937, '40, '46.

BOB RIDDLE, Box 543, Fort Scott, Kan., wants pre-1900 reward notices. Will photograph Frisco eqmt. on order; 2¼x3¼, 25c ea.; 5x7, 75c ea. No negs. Minimum, $1.

W. P. ROBBINS, 1313 N. John St., Palestine, Texas, offers Railroad Magazine, Trains, tts., emp. tts., passes, books, other railroadiana. Sell, trade or buy. Details on request.

LEONARD SCHROEDER, Box 308, Brisbane, Calif., wants to hear from collectors of loco nameplates. (Editor's note: He wants something else, too, but we can't read his handwriting.)

ALLEN SHARP, 100 Shennecossett Pkway, Groton, Conn., will sell current Off. Guide, $1.25 ea., postpaid. Send 25c coin for big list railroadiana, plus 10 BAR tr. ords., BAR ticket.

DICK SHORT, 226 Valley Rd., Merion Sta., Pa., will sell many size 616 U. S. and Canadian trolley pix, operating and aband., also Eastern U. S. steam pix. List, sample, 20c.

JACK SHORT, Box 194, Perkins, Calif., will sell caboose stove, loco bell and dynamo, tr. ord. and semaphore sig. lamps, Brit. and Sou. mags. List and price on request.

J. F. SMITH, 17638 Roosevelt, Homewood, Ill., will sell Railroad Magazine, Trains, pix, negs., steam power, passes. Write for info.

W. J. SNELL, 2812 Ryan Ave., Fort Worth, Texas, offers Off. Guide, July '53; Aug., Dec. '54; Apr., July, Oct., Dec. '55; May '56, all good cond., 75c ea. plus post.

W. N. STEAD, Box 592, Effingham, Ill., will trade Wabash emp. tts. for '30, '31 issues Railroad Magazine, '40 issues Trains, Kodak pix SP locos 4304 and 4362.

E. F. STODDARD, 35 Ringgold St., Springfield, Mass., will trade rr. lanterns and book on trolley cars for size 116 steam negs., HO equip.

L. A. STUCKEY, 658 11th St., Brandon, Man., Canada, will sell size 616 negs. CPR, CNR, some U. S., or trade same for steam negs.

GRANVILLE THOMAS, 218 E. Vine St., Millville, N. J., will sell 19 issues Trains mag., $5 plus postage. (Editor's note: He forgot to say which issues.)

A. VON BLON, 525 N. 5th St., Waco, Texas, offers emp. tts. Northern Ala., AGS, Sou., Columbus Div.; St. Louis & Louisville, all about 1920.

AL. WAGNER, Box 24, Caledonia, O., wants recent emp. tts., Pennsy, Buffalo Div.

JOHN WEIGHTMAN, P.O. Box 696, Sacramento, Calif., will sell 15 SP Bulletins, May, June, July, '38; June, Sept., '41; Lot, $1.50.

Capt. PAUL WINNEY, Rte. 3, Box 1121, Jacksonville, Fla., wants 35 mm. color slides FEC, Sou., SAL, ACL.

CHAS. WINTERS, 3834 E. 61st St., Kansas City, Mo., sells size 116 pix, 450 rds., no diesels, 10c ea., on approval.

JOHN WUNDERLE, 3215 Wendover Circle, Youngstown, O., will sell Railroad Magazine, '36 thru '41 comp.; '42 exc. Feb.; '43 except Sept., Oct., Nov.; '44 thru '52; '53 exc. Jan.; all good cond. Many other rr. mags. Best offer over $60 for lot.

MODEL TRADING POST

WALT FINE, 519 Chestnut St., Latrobe, Pa., will sell comp. layout Lionel elec. trains. Write for details.

L. H. GRIER, Morningside Dr., Elmira, N. Y., will swap Hamilton rr. watch, Sheridan pellet gun, or spinning outfit for wrist watch, binoculars, or model rr. eqmt.

D. J. HENNINGER, 246 Jefferson St., Tiffin, O., sells model rr. mags., books, scale model cats., AF and Li. cats. List for 3c stamp.

FRANK KARN, 3658 Louisiana Ave., St. Louis, Mo., has 0 gage Li. Santa Fe diesel, AF B&O Bullet cars, AF 2-rail sets, to sell or swap for Maerklin HO items.

C. W. LOGAN, Box 72, Correctionville, Ia., will sell 4 Marx locos, 41 frt. cars, 9 pass. cars, or trade for HO. Compl. list on request.

J. MURRAY, 33 R Winthrop St., Rehoboth, Mass., will sell comp. amusement-park-size steam train and track. Pix, details, $1 (refundable).

R. J. PATZER, 504 McKinley, Batavia, Ill., will sell Railroad Magazine, '44 thru '54, 20c ea. plus post, or trade for foreign stamps or AF engines.

TED REIMEL, 317 Virginia Ave., Collingswood, N. J., will sell or trade anything in HO or sta. gage. Ex. 8x10 pix of PRR, Rdg., N&W, P-RSL, L&NE, L&HR, steam, diesel, elec. locos.

BEN SMITH, 265 Tompkins Ave., Brooklyn, N. Y., will sell locos 400 E, 392 E, 385 E, 384, 42, 38, 50, Hudson 763 EW, Pennsy 0-6-0, or trade for 0 gage trolleys, old iron toys.

STEAM POWER

THE FOLLOWING list of steam power currently to be seen has been compiled from information sent us by Paul Emch, Peter I. Roehm, J. F. Monhoff, John F. Best and Max Wright. We cannot guarantee its accuracy, as situations are changing.

B&O at Cleveland has 0-8-'0s and 2 8-2's on yard duty and 2-8-2's on road, in shops, and in roundhouse.

Nickel Plate has 28-4 and 600 series 2-8-2's on mainline freight, plus 900 series (964 and 950) on work trains.

Pittsburgh saw its last steam loco in operation October 3 when B&O 2-8-2 No. 4482 left Glenwood yards for New Castle, pushing 70 loads over Schenley and Bakerstown hills. Her ultimate destination may be the scrap yard, but first she will work for awhile on Chicago Division.

West Penn Electric; Connellsville, Pa., 0-4-0T No. 2.

Castleman River; Grantsville, Md., 2 2-8-0's Nos. 3104 and 3112.

Union of Pittsburgh, near Rankin, Pa., 0-6-0, No. 108.

Duquesne Slag; Pittsburgh, Pa., 0-6-0, three 0-4-0T's.

Aliquippa & Southern; Aliquippa, Pa., three 0-8-0's Nos. 211, 219, 227.

Pennsy; Pitcairn, Pa., 2-10-4's active; Terre Haute, Ind., 2-8-0's.

In the Toledo are the only steam power left is on the B&O, Pennsy, and Nickle Plate (W&LE District). The B&O is using many 0-8-0's, 2-8-2's, and 4-8-2's, and a few 4-6-2's. The NKP has two 2-8-4's running between Toledo and Brewster, Ohio. The Pennsy two 2-10-4's in service between Toledo and Columbus.

St. Louis Material & Supply; 0-6-0 No. 17, Pacific, Mo., active service.

France Stone; 0-4-0T No. 38, in service; cabless 0-4-0T: gas switcher on U. S .route 24 between Logansport and Peru, Ind.

Southwest Lbr. Mills; Flagstaff, Ariz., Ex. Arcata & Mad River 2-6-6-2T in road service: 2-8-0 No. 2 in helper. Apache Ry. No. 300, 2-8-2 is out of service with a bad boiler; so is SW Lbr. 2-6-6-2 No. 4.

Brooklyn Eastern District Term.; Main yard 0-6-0T's Nos. 10, 11, 12, 13, and 15.

Union Pacific; 4-6-6-4's, 2-8-2's, 4-8-8-4's, 4-8-4 at Cheyenne, Wyo.

Illinois Central is using much steam power out of New Orleans. In Mays yard you can see numerous 4-8-2's, 2-8-2's and 0-6-0's. Apparently all IC freight runs out of New Orleans are steam. These are in the open and easy to photograph. There is also plenty of IC steam at McComb, Miss., yards.

DOWN IN TEXAS. W. H. B. Jones, P. O. Box 777, Galveston, Texas, who has just made a long railfan tour of Texas, reports the following:

Lafayette, La.: Southern Pacific still using steamers between afayette and New Orleans. Roundhous full of 2-6-0's, 2-8-2's, 2-10-2's.

Longleaf, La.: Red River & Gulf No. 106 (4-6-0) stored inside. Crowell Long Leaf Lbr. Co., No. 202, a 2-6-0, and No. 400, 4-6-0; outside.

Between Forest Hill and Woodworth, La.: Amite Gravel Co.: 0-6-0-T, built by Porter; Alexandria ravel Co.: No. 15, 4-6-0 (ex-Tremont & Gulf 15), and Rapides Gravel Co.: 2-6-2 No. 69 and a 4-6-0 still lettered Louisiana Midland, No. 509.

Winnifield, La.: Tremond & Gulf No. 44 (4-6-0) stored inside.

Fisher, La.: Louisiana Long Leaf Lbr. Co., 2-6-2 working.

Ansley, La.: Davis Bros. Lbr. Co., No. 24 (4-6-0) working.

Holly Ridge, La.: Geo. B. Franklin & Son Lbr. Co., No. 3, Heisler in junk condition.

Tallulah, La.: Chicago Mill & Lumber Co., Heisler, No. 33, working.

Huttig, Ark.: Arkansas & Louisiana Missouri, No. 1 (4-6-0) working. Louisiana & Pine Bluff, No. 61 (2-8-0) working; No. 4 (2-6-2) stored.

Crossett, Ark.: Crossett Lbr. Co., No. 15 (2-8-0) stored outside.

Warren, Ark.: Large Pershing type 2-8-0 works at sawmill. Southern Lumber Co. No. 123 (4-6-0) in City Park.

Star City, Ark.: Augusta RR, has 3 steamers working.

Fordyce, Ark.: Fordyce & Princeton, No. 101 (2-8-0) stored inside.

Camden, Ark.: One steamer stored inside.

Eldorado, Ark.: Eldorado & Wesson: three 2-8-0's all at Wesson, all ex-MoPac.

Reader, Ark.: Reader RR. No. 11 (2-6-2) inside house; No. 12 (4-6-0) ex-Tremond & Gulf; and No. 401 (2-6-0) ex-StLSW No. 401.

Prescott, Ark.: Prescott & Northwestern No. 7 (2-6-2) stored inside; No. 17 (2-8-2) stored outside.

Nashville, Ark.: A 2-6-0 stored inside.

DeQueen, Ark.: DeQueen & Eastern, 3 steamers stored inside.

Lewisville, Ark.: Meriwether Gravel Co., 336 (2-6-0) ex-StLSM 336.

Silsbee, Texas: Kirby Lbr. Co., has one Diesel. Sold all steamers for scrap. (25 years ago, Kirby had 19 big mills and about 200 locomotives, all steam.)

Jasper, Texas: Kurth Lbr. Co., small 2-8-0, No. 20.

Pineland, Texas: Temple Lbr. Co., a 2-6-2, No. 1141 (ex-Santa Fe 1141); No. 28 (2-8-0) ex-Tremond & Gulf No. 28); No. 20 (2-8-2), built by Baldwin for TLCo.

Keltys, Texas: Angelina & Neches River, a 2-6-0 and a 2-8-2 Angelina County Lbr. Co. 2-6-2.

Diboll, Texas: Texas South-Eastern, two steamers left. The associate company, Southern Pine Lbr. Co., also has two steamers.

Trinity, Texas: Waco, Beaumont, Trinity & Sabine has a little 2-6-2, No. 1.

Camden, Texas: W. T. Carter & Bro. Lbr. has 10 locos. Their railroad, the Moscow, Camden & San Augustine, has 3 or 4.

PHOTO-QUIZ ANSWERS

(1) Portable impact recorder registers shocks to a locomotive. This new-type instrument, housed in fiberglas, weighs 11 pounds, is entirely self-contained, and can serve 24 hours without attention. Sometimes it is hidden in the engine cab; at other times it rides in full view of the crew. Tape shows clearly how a locomotive is being handled, the severity of her starts and stops, her idle time, and her slack bunching. Impact-O-Graph Corp. of Cleveland developed this mechanism primarily for freight but it is used also to test the riding qualities of new passenger trains.

(2) Diesel fuel installation owned and operated by the Atlantic Coast Line at Wilmington, N. C. These pipes receive fuel from ocean-going tankers for storage and for distribution to diesel-electric locomotives.

(3) Candid-camera shot of a flagman in a caboose cupola. (The train is the New York Central's fast freight, "The Pacemaker.")

(4) Log dunker lifts a "giant toothpick" from a Southern Pacific gondola to a sawmill pond at the Springfield, Ore., operations of Booth-Kelly Lumber Co. Western Oregon has the nation's largest timber industry, with more than 600 shippers of forest products located along the SP's Portland Division.

(5) Old-type ball signal is still controlling train traffic on the Boston & Maine and the Canadian Pacific at the White River Junction, Vt., crossover. This kind of signal was a typical New England landmark and gave rise to the word "highball." Philip R. Hastings snapped the photo in 1946. ●

Mathematics Made Simple

FREE

TO INTRODUCE YOU TO A NEW DISCOVERY IN HOME EDUCATION

Fill the Gaps in Your Family's Education With This Amazing

MADE SIMPLE Self-Teaching Program

Covering the following subjects:

Mathematics	Everyday Law	Word Mastery	Art Appreciation
English	Spanish	The Art of Speaking	Philosophy
Chemistry	French	The Art of Writing	Astronomy
Physics	Psychology	World Literature	Chess
Biology	Business Letter Writing	World History	Contract Bridge
American History	Bookkeeping	Music Appreciation	

All You Want to Know About Mathematics . . . in Clear, USABLE FORM!

Do you wish you could use arithmetic, algebra, geometry and trigonometry to save time and money . . . to win job promotions and good grades? Do you wish you could handle a slide rule or solve problems in business math quickly and easily? Do you and your family want to KNOW more about MATHEMATICS because it is the basic cornerstone of modern civilization?

If you answer "yes," this handsome volume is what you're looking for. MATHEMATICS MADE SIMPLE can be worth hundreds of dollars to you this year alone. But it's yours FREE if you act at once. The fascinating contents include:

• "HIGH SPEED" ARITHMETIC. 3 ways to add faster How to figure profit, loss, interest, percentage, taxes. Short cuts with decimals. Quick multiplication and division methods. Fractions, square roots, etc.

• GEOMETRY AND TRIGONOMETRY. Axioms and theorems made simple. How to figure angles, volume, areas. What surveyors do. Longitude and latitude. Sines, cosines, tangents. How logarithms simplify multiplication. Measuring very large or distant objects. Tables of logs and angle functions.

• ALGEBRA. Principles of Algebra. How equations help solve everyday problems quickly. Ratio and proportion. Positive and negative numbers. How to use a slide rule. Square and cube roots, simultaneous equations, etc.

• OTHER PRACTICAL PROBLEMS. Constructing graphs, charts, blueprints, etc. Weights and measures. English money. Board feet. Solve "home handyman" problems. Bushel, cord, metric measure. Calculate acreage, etc.

PLUS hundreds of other topics. There's no confusing language, no complicated diagrams and charts. Anybody can understand the MADE SIMPLE method. To introduce this wonderful new plan, we offer this big book MATHEMATICS MADE SIMPLE absolutely FREE. Simply mail coupon now!

HERE'S YOUR chance to discover the famous, proven MADE SIMPLE method and get this richly-bound volume, MATHEMATICS MADE SIMPLE absolutely free!

This big, handsome book is part of a new, practical, self-teaching program that offers you and your family a chance to master important up-to-date subjects we use in business, conversation and reading. Your children will find this program invaluable in doing their homework and getting higher grades. WRITING, SPEAKING, PSYCHOLOGY, LAW, LITERATURE, HISTORY, MATHEMATICS, BOOKKEEPING, WORD POWER . . these are only some of the useful, profitable subjects necessary for advancement on the job and socially . . . the Made Simple self-teaching method makes a part of you . in as little as 15 minutes a day!

NO MONEY TO SEND! MAIL COUPON TODAY!

Made Simple Books, Dept. M-267
220 Fifth Avenue, New York 1, N. Y.

Please send me MATHEMATICS MADE SIMPLE absolutely FREE At the same time, send, on approval, the next Self-Teaching volume. ENGLISH MADE SIMPLE. After 7 days examination. If I decide to keep this book, I will pay only the subscriber's special low price of $1.98 plus a few cents postage and handling.

I will be entitled to receive each following deluxe volume of the Made Simple Self-Teaching Program when ready (2 volumes a month will be released) at the same low price, sending no money in advance.

I may return or will pay for any book within 7 days after receiving it. I may cancel my reservation after buying one, two, or as many books as I please and you agree to send me no further volumes after you receive my cancellation. In any case, MATHEMATICS MADE SIMPLE is mine to keep — ABSOLUTELY FREE!

Name_____

Address_____

City_____ Zone____ State_____

Here's How These New Richly-Bound Made Simple Volumes Use Everyday Situations to Teach Science, Business, Cultural and School Subjects — Assure Complete Mastery for Faster Job Advancement, Better School Grades . . . Richer, Fuller Living — in 15 Minutes a Day!

You Learn When You Want — Like Having College Instructors in Your Own Home . . . For Only Pennies a Day!

The MADE SIMPLE method teaches you easily and naturally—in a practical, useful manner and not by memorizing lists and rules. Instead of the confused explanations that clutter up most books, MADE SIMPLE uses clear, everyday language that everybody can understand. The "handpicked" expert authors include lawyers, C.P.A.'s, Associate and Full Professors of leading colleges, instructors from Princeton, De Paul, City College of New York, Rutgers and many others.

Best of all, you never have to buy any materials or extra books or outlines to round out your courses. Each MADE SIMPLE volume is complete in itself. They start from the beginning, assume no previous knowledge of the material and lead you quickly and carefully through every phase of the subject.

Complete Explanations, Simple Illustrations Make Every Point Clear—No Previous Knowledge of the Subject Required

Let's look at one of the books and see how the MADE SIMPLE method makes every point absolutely clear by using simple, everyday illustrations and examples.

In PHYSICS MADE SIMPLE, in the section on air pressure, you see this experiment which you can do right now in your own home. "Hold one edge of a piece of letter paper against your chin just below your lower lip, with the paper hanging over and down. If you now blow above the paper, it will rise to a horizontal position as if pulled upward in the air stream." By using only a piece of paper, you have performed an experiment that demonstrates the important principles involved in flight and streamlining.

It's as easy as that! In other books, you would first "plough through" Bernoulli's Law, Boyle's Law and other technical terms. Here, however, you read a simple explanation, do an interesting experiment and then learn the required technical terms. As a result they will mean something to you. That's why the MADE SIMPLE method has worked for thousands of people who needed more help than you may think you do. You would expect to pay three to four dollars apiece for these 8⅛ x 11¾-inch beautifully bound, richly stamped library volumes. But if you take advantage of this amazing FREE offer, you pay only $1.98 per volume. You can stop whenever you want. Meanwhile you are building a permanent reference set for your home —a handsome educational "tool" the whole family will use again and again.

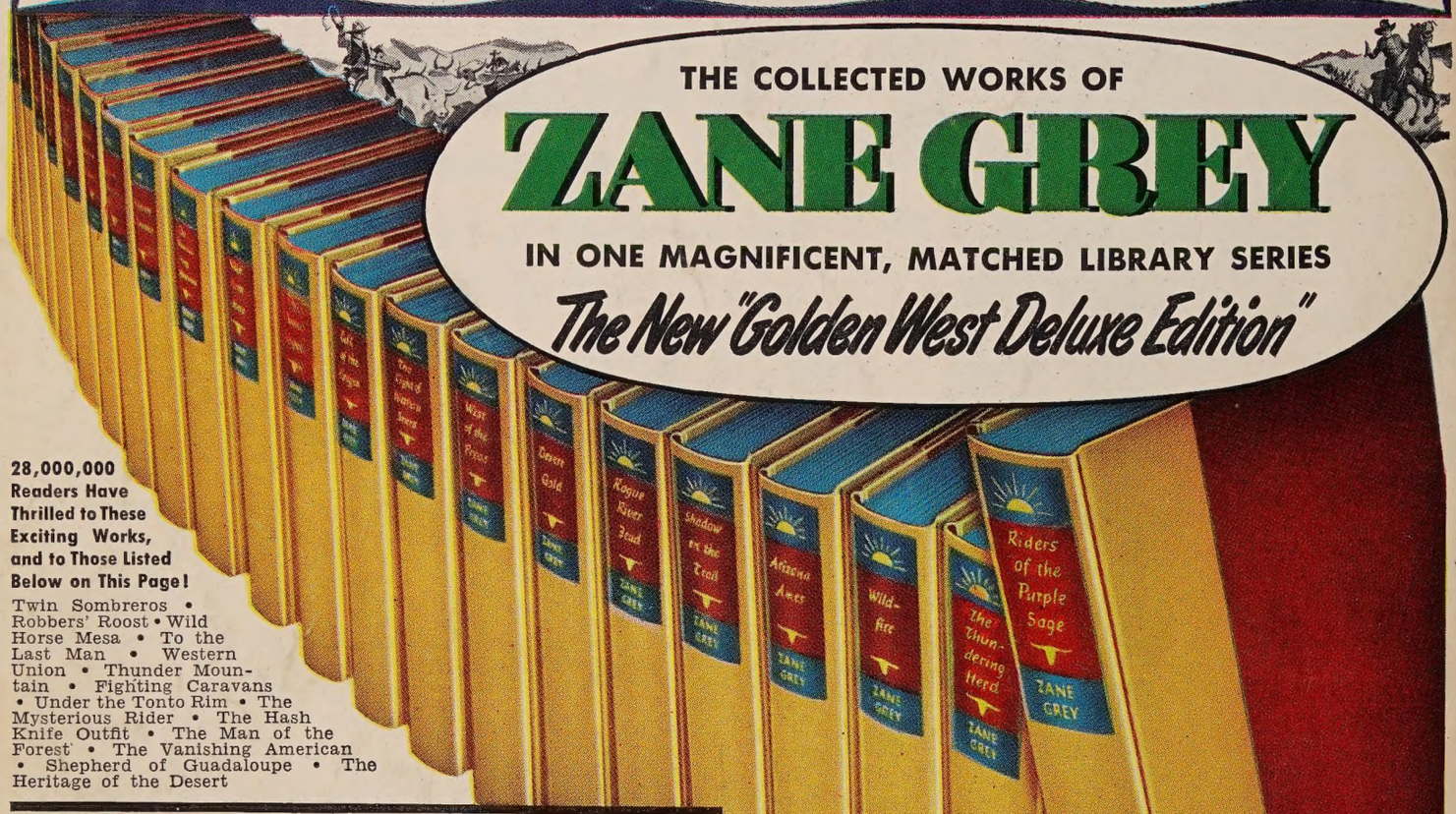
See for yourself without risk. Send for your FREE book, MATHEMATICS MADE SIMPLE

NOW READY! ENGLISH MADE SIMPLE

With your FREE book, you will also receive another handsome, matched library volume. ENGLISH MADE SIMPLE for FREE examination. This is a valuable, practical "course," shows you how to write and speak clear, expressive English. You learn how to punctuate sentences correctly; how to build a better vocabulary; how to write effective personal and business letters. Here's a rich treasury of useful and profitable guides to good English usage!

AMAZING OFFER

TO READERS OF THIS MAGAZINE



THE COLLECTED WORKS OF

ZANE GREY

IN ONE MAGNIFICENT, MATCHED LIBRARY SERIES

The New "Golden West Deluxe Edition"

28,000,000 Readers Have Thrilled to These Exciting Works, and to Those Listed Below on This Page!

Twin Sombreros • Robbers' Roost • Wild Horse Mesa • To the Last Man • Western Union • Thunder Mountain • Fighting Caravans • Under the Tonto Rim • The Mysterious Rider • The Hash Knife Outfit • The Man of the Forest • The Vanishing American • Shepherd of Guadaloupe • The Heritage of the Desert

NOW—Yours to enjoy for a Lifetime!

WHO can read Zane Grey's tales and not be swept away by their breath-taking thrills and blood-tingling excitement? Here are fearless men and the women they fought for; ruthless desperadoes and trigger-quick outlaws. Here is the roar of guns — and the silence of the prairie.

Here is the raw West, where greed and passion struggled for power; where men and women rode roughshod over danger and death.

You do not merely read these books; you share in these pulse-pounding adventures!

Really Luxurious Books!

These magnificent books are bound in handsome buckram and cloth, in glowing red, tan, and blue. Stamped in genuine gold, with tinted page tops, colored end-papers, decorative head and foot bands.

Now Ready!

Your First Volume

RIDERS OF THE PURPLE SAGE

Fiery gun fights; wild chases; hairbreadth escapes; the raw beauty and vast silence of the plains—the whole colorful epoch of the pioneer! Against this backdrop of blazing action, a mysterious rider and the girl he loves gamble their lives in the winning of the West!

All the Glory of the Old West — Its Sweeping Action, Color and Romance — Recaptured in Beautiful Volumes Your Family Will Be Proud to Own

HERE is an amazing opportunity! Now you can bring into your home *The Collected Works of ZANE GREY*—in beautiful matched volumes, "Golden West De Luxe Editions."

How proud you will be to display these luxurious volumes—gorgeously bound in buckram and sturdy cloth. Yet, because of a tremendous printing, they come to you for less than the price of *ordinary* books!

Just picture them in your home—and imagine the world of pleasure they will open up to your family! The partial list that follows gives you only an inkling of the thrills that await you:

1. **RIDERS OF THE PURPLE SAGE.** See description above.
2. **THE THUNDERING HERD.** The glorious days of the Texas hide-hunters — fearless men answering the wildness of the range with flaming guns!
3. **WILDFIRE.** The tempestuous story of a great wild stallion, a fiery girl—and the man who was strong enough to tame them both!
4. **ARIZONA AMES.** His blazing six-shooter spread terror in the hearts of the toughest badmen!
5. **SHADOW ON THE TRAIL.** Quick-shooting Wade Holden fights with rawhide-tough rustlers.
6. **ROGUE RIVER FEUD.** Violence and death on Rogue River, where men stopped at nothing to win the high stakes of the rich salmon runs.
7. **DESERT GOLD.** Spine-tingling adventures of men and women crazed by the lure of riches.
8. **WEST OF THE PECOS.** Into this land of the lawless came a straight-shooting young man—who turned out to be a *girl!*
9. **THE LIGHT OF WESTERN STARS.** Mighty epic of warfare on the border, throbbing with excitement!
10. **CALL OF THE CANYON.** Smashing drama of death and danger—racing to a climax that leaves you breathless!
11. **30,000 ON THE HOOF.** Pioneer Logan Huett battles against screaming Indians and lawless rustlers in this gun-bristling saga of Old Arizona.

The other great volumes are listed at left, above. Every one is complete; not one thrilling word is cut!

SEND NO MONEY

Send no money! Just mail RESERVATION CERTIFICATE to examine first volume, RIDERS OF THE PURPLE SAGE. With it will come readers' invoice for $2.29 as full payment, plus few cents mailing charge, and instructions on how to get your other beautiful volumes. If not fully satisfied you may return any book; you may cancel your reservation at any time.

There are positively no other charges. No "fee," no "deposit" in advance. First come, first served. Send in the Reservation Certificate NOW! WALTER J. BLACK, INC., Roslyn, L. I., New York.

READER'S RESERVATION CERTIFICATE

WALTER J. BLACK, INC. KE
Roslyn, L. I., New York

Please reserve in my name the books listed in your generous offer to readers of this magazine —the luxuriously-bound "Golden West De Luxe Editions" of Zane Grey. Send me at once the first book, RIDERS OF THE PURPLE SAGE. I enclose NO MONEY IN ADVANCE; but within one week I will send you only $2.29, plus a few cents mailing charge—and I will be entitled to receive each following handsome De Luxe volume as it comes from the press, at the same low price, sending no money in advance. If not completely satisfied I may return any book within one week of receiving it; I may cancel my reservation at any time. *(Books shipped in U.S.A. only.)*

Name.....
(PLEASE PRINT PLAINLY)

Address.....

City.....*State*.....